



# Three Essays on Political Economy of Media

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Three Essays on Political Economy of Media

A dissertation presented

by

ByungKwon Song

to

The Department of Government

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

in the subject of

Political Science

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Three Essays on Political Economy of Media

Abstract

This dissertation addresses the questions of what kind of political information is provided by media outlets and how media environments affect electoral politics.

In my first essay, I investigate the effect of the entry of television on U.S. presidential elections from 1944 to 1964. I first show that television increases the importance of the national economy. Second, I show that television weakens the relationship between the circulation of partisan newspapers and the party vote share. In addition, I show that the crowding out of political information by television does not drive these results. I find that television is not associated with a drop in newspaper circulation and people are just as likely to read about campaigns in newspapers when television becomes available. These findings suggest that television can be a valuable source of political information.

In the second essay, coauthored with Ángela Fonseca Galvis and James Snyder, we study the effect of competition on media bias in the context of U.S. newspapers in the period 1870–1910. Our results indicate that partisan newspapers cover scandals involving the opposition party’s politicians more intensely and cover scandals involving their own party’s politicians more lightly. More importantly, we find evidence that competition decreases the degree of media bias. The point estimates suggest that compared to a newspaper in a monopoly position, a newspaper facing two competitors will on average exhibits less than 50% as much overall bias in coverage intensity.

In the third essay, I study whether newspaper coverage of scandals can help voters punish the party of politicians involved in a scandal. I focus on the US House of Representatives from 1982 to 2004. I use the congruence between newspaper markets and congressional districts as a measure of newspaper coverage of scandals. I show that newspapers write more stories about representatives involved in a scandal in districts that are more congruent. I find that

the parties in scandals suffer moderately in elections. More importantly, my results suggest that the parties in scandal do worse in districts/counties with higher congruence: they get fewer votes and are less likely to win.

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# Chapter 1. The Effect of Television on Electoral Politics

Television caused a dramatic change in media environment. People started receiving political information from the new media that differed in many ways from previous media, most notably the press. I focus on two features of political information on television that stem from the ability of television to cover relatively large and heterogeneous geographic areas. First, since television stations provide news to a broad audience, they would spend more time covering national rather than local issues. Second, political information would conceivably be politically more neutral, as the audience of television has diverse political preferences and the Communications Act of 1934 requires that television stations should provide equal opportunities to any political candidates. Consistent with these conjectures, I find that during the 1960 presidential election cycle television exclusively covered national politicians and television coverage of the two major parties was fairly balanced.

How did this change in media environment affect electoral politics? First, I find evidence that television increases the saliency of national issues in presidential elections, in particular the national economy. I also find that television does not affect how people vote based on the state economy, which is consistent with the hypothesis that television increases the saliency of national issues by providing national news. Second, I present evidence that television decreases the effect of the partisan press. I find that television weakens the relationship between the circulation of partisan newspapers and the party vote share.

I explore the possibility that the results are driven by crowding out of political information (e.g., Gentzkow 2006). If people substituted television for local newspapers, they would receive less political information, especially on local politics, and therefore vote based on national rather than local issues. Similarly, the effects of the partisan press may decrease because newspaper readership falls when television enters the local media market. I find little support for this hypothesis. I show that the entry of television is not associated with



a sharp drop in newspaper circulation, and people continue to read about campaigns from newspapers even after they have access to television. The results suggest that television affects voters by adding new political information that is nationally oriented and less partisan.

## Political Information on Television

In this section, I provide background information on how television covers politics and how the political information on television differs from what is in newspapers.

Before television and radio, media markets were basically local newspaper markets. They were relatively small and typically confined to a single county.<sup>1</sup> If media outlets cater to the preference of their consumers, as previous studies show (e.g., Gentzkow and Shapiro 2010; Puglisi and Snyder 2011; Gentzkow et al. 2011), then local newspapers would have strong incentives to provide local news and tailor their stories to the partisan tastes of their readers.

In contrast, television stations cover much larger and more heterogeneous geographic areas. In 1970, the mean of the number of counties that belonged to a single television media market was 15 and the median was 12.<sup>2</sup> The size of the market can affect the type of information provided by television. Since television stations provide news to more people with diverse tastes, I expect political information from television to be more about national rather than local issues, and politically neutral compared to newspapers.

Ideally, analyzing contents of television news programs would allow us to investigate what type of political information television provided. Unfortunately, television scripts data is not available for the sample period of this study. However, the Federal Communications Commissions (FCC) published the *Survey of Political Broadcasting* during the 1960 presidential election cycle (September 1 – November 8, 1960), which can give us a sense of how television

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<sup>1</sup>As explained in Appendix A.1.1.3, it is reasonable to assume that most counties get their copies from in-county newspapers.

<sup>2</sup>I used the Areas of Dominance Influence (ADI), constructed by Arbitron, from *Broadcast and Cable* (1970) for television market definition. According to the definition, each county is assigned to one media market based on the geographic distribution of television viewers. The data is kindly provided by James Snyder.

covered politics.

The commission sent out surveys to four national radio networks, three national TV networks, and 4,590 commercial broadcasting stations (3,374 AM radio stations, 700 FM stations, and 515 TV stations) to obtain information about political broadcasting activities of radio and television stations.<sup>3</sup> About 92% of surveys were returned on time (4,202 stations) and were included in the report. The commission's survey contains state-by-state data on appearances by candidates for president, vice president, senator, U.S. representative, and governor on broadcasting media.

Table 1.1: Appearances by Candidates on Television during the 1960 Presidential Election

Office	Total Hours	Appearances
President	5,237	40,865
Vice President	1,192	7,329
U.S. Representative	398	1,309
Governor	411	1,117
Senator	342	599
Combined (P+VP)	6,429	48,194
Combined (H+G+S)	1,151	3,025

The first column shows the total hours candidates appeared on television programs for more than five minutes and the second the number of times candidates appeared in programs for less than five minutes. The last two rows present the numbers totaled for president and vice president, U.S. representative, governor, and senator respectively.

We can notice two things from the survey. First, during the 1960 election cycle, television stations exclusively covered national politicians: presidential and vice presidential candidates. Table 1.1 shows television appearances by candidates for president, vice president, U.S. representative, governor, and senator. The first column shows the total hours candidates appeared on television programs for more than five minutes and the second the number of times candidates appeared in programs for less than five minutes. The last two rows present for comparison the numbers totaled by president and vice president, U.S. representative, governor, and senator respectively.

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<sup>3</sup>One of the purposes of the report was to help the Congress in its consideration of Section 315 of the Communications Act, which will be explained in detail below.

The first column in Table 1.1 shows that presidential and vice presidential candidates appeared about 5.6 times more often than candidates for U.S. representative, governor, and senator *combined* on television programs. The difference between presidential candidates and candidates for other offices is even greater in short appearances, as the second column shows. If we assume that the minutes of short appearances are evenly distributed with the mean value of 2, then the total hours of appearances by presidential and vice presidential candidates would be 8,035 ( $6,429 + 48,194/60 \times 2$ ) and the total hours of appearances by candidates for U.S. representative, governor, and senator would be 1,252 ( $1151 + 3,025/60 \times 2$ ). This would suggest presidential and vice presidential candidates appeared about 6.4 times more often.

To see how this result compares to newspaper coverage of politicians, I searched newspaperarchive.com for articles that mentioned candidates for president and governor during the same period: September 1 - November 7, 1960.<sup>4</sup> Specifically, I searched for articles that mentioned the word “election” and one of the last names of the candidates from the two major parties. The sample includes 292 newspapers published in 26 states. I found 22,725 articles that mentioned presidential candidates and 10,021 articles that mentioned gubernatorial candidates. Although the sample from newspaperarchive.com may not be representative of the newspapers in the U.S., the result can shed some light on how newspapers and televisions cover politics differently. While presidential candidates appear on television about 13 times more than gubernatorial candidates,<sup>5</sup> they are mentioned by newspapers only twice as much as gubernatorial candidates.

Second, the television coverage of two major parties was fairly balanced. The Communications Act of 1934 states that radio and television stations should provide equal opportunities to any political candidates (the “equal-opportunities” provision of Section 315).<sup>6</sup> Although

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<sup>4</sup>I restrict the search until a day before the election day to exclude articles that report election results.

<sup>5</sup>In terms of the total hours of appearances on programs that lasted more than five minutes: 5,237 hours for presidential candidates and 411 hours for gubernatorial candidates.

<sup>6</sup>Before the 1959 amendment to section 315, which gives exemptions to certain programs, the “equal-

Senate Joint Resolution 207 suspended the provision during the 1960 presidential election cycle, state-by-state appearances of presidential candidates from the two major parties in television programs were relatively even.

To assess how television stations covered the presidential candidates of the two major parties, I totaled all the hours each candidate appeared on television for more than five minutes in each state,<sup>7</sup> and calculated the following measure,

$$Relative\ Dem\ Appearance_s = \frac{Dem\ Hours_s}{Dem\ Hours_s + Rep\ Hours_s},$$

where  $s$  indexes state. The mean of this score is .539 with a standard deviation of .035 (minimum and maximum are .458 and .629 respectively).<sup>8</sup> I find no evidence that this score is positively correlated with political preference of voters in each state. I calculated the Democratic share of the two party votes in presidential elections averaged over the years 1956 and 1960. The correlation between the relative appearance score and the Democratic vote share is .078.<sup>9</sup> Figure 1.1 shows this graphically. There is no linear relationship between political preference and relative coverage of politicians at the state level.

On the contrary, newspaper coverage of politicians was more partisan. To measure partisan bias of newspapers, I count the number of articles mentioning Democratic and Republican presidential candidates for every presidential year from 1944 to 1960 and calculate the

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opportunities” provision of Section 315 read as follows:

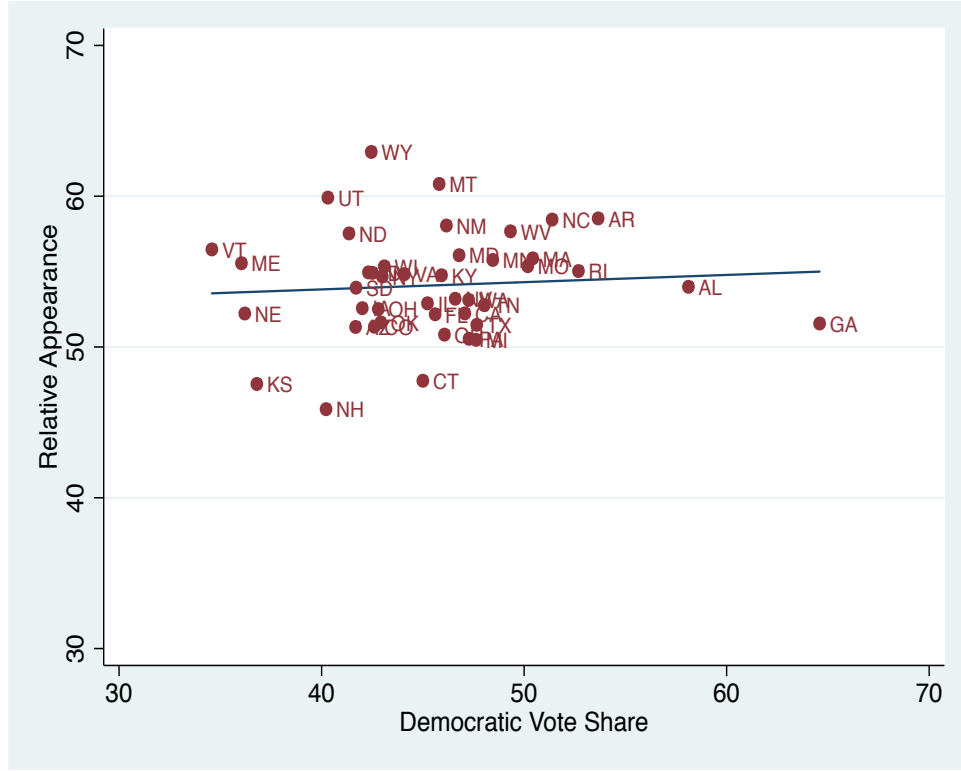
- (a) If any licensee shall permit any person who is a legally qualified candidate for any public office to use a broadcasting station, he shall afford equal opportunities to all other such candidates for that office in the use of such broadcasting station: *Provided*, That such licensee shall have no power of censorship over the material broadcast under the provisions of this section. No obligation is imposed upon any licensee to allow the use of its station by any such candidate.

<sup>7</sup>Unfortunately, station level data is not available.

<sup>8</sup>Delaware and New Jersey are excluded as no station in those two states reported presidential candidates’ appearances that lasted more than five minutes.

<sup>9</sup>Alaska and Hawaii are not included because they were not part of the union in 1956. Louisiana and Mississippi are excluded due to a strong presence of the third party candidate in those states. The result looks similar when I include the two states.

Figure 1.1: Candidate Appearances on TV and Voter Preference in 1960



This figure shows the relationship between the relative television appearances of the Democratic candidate for president and the Democratic vote share at the state level in 1960. Data on candidate appearances is from FCC (1961).

relative frequency of articles about Democratic candidates.<sup>10</sup> More specifically, let  $Hits_{it}^D$  ( $Hits_{it}^R$ ) be the number of articles published by newspaper  $i$  about the Democratic (Republican) candidate running for president in year  $t$ . I define

$$Relative\ Dem\ Hits_{it} = \frac{Hits_{it}^D}{Hits_{it}^D + Hits_{it}^R}.$$

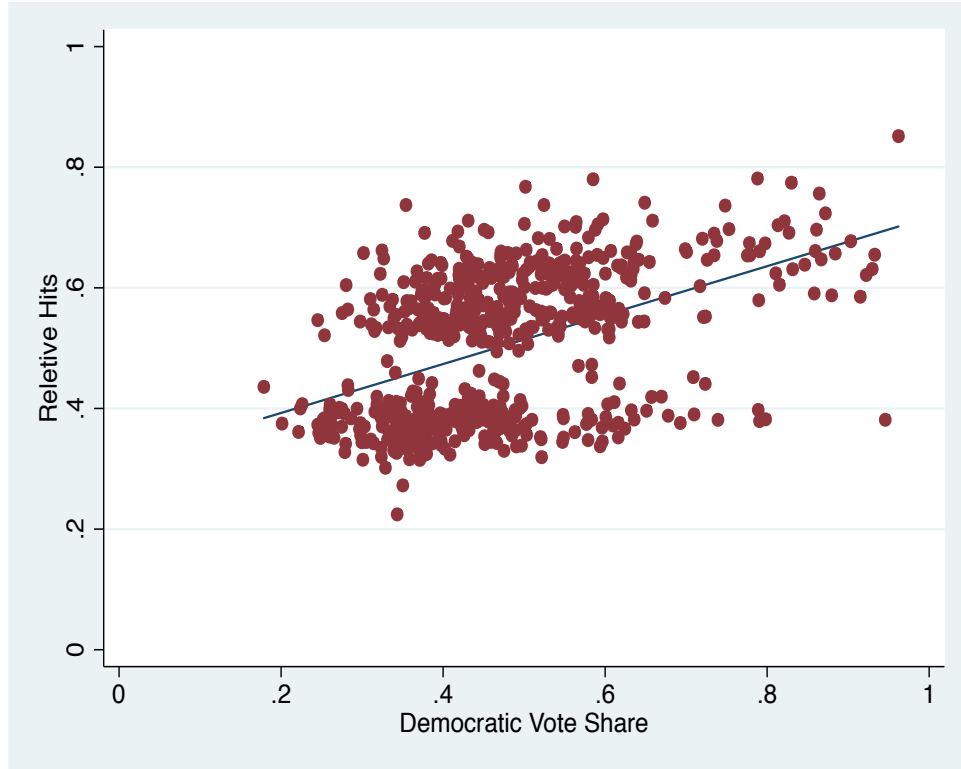
I regress  $Relative\ Dem\ Hits_{it}$  on the Democratic share of the two party votes in presidential elections, measured at the county level as I defined newspaper market to be a county, and party affiliation of newspapers.<sup>11</sup>

<sup>10</sup>Gentzkow, Shapiro, and Sinkinson (2011) also use a similar measure for political slant of newspaper coverage.

<sup>11</sup>I code party affiliation as 1 if newspaper  $i$  is classified as Democrat by *Editor and Publisher Yearbook*,

While candidate appearances on television in 1960 show no pattern of partisan bias, newspaper coverage of politicians is correlated with partisan preference of newspaper readers. The correlation between the relative newspaper coverage and the Democratic vote share is .464. As Figure 1.2 shows, newspaper coverage of politicians during the campaign is positively correlated with voter preference measured at the county level.

Figure 1.2: Newspaper Coverage of Candidates and Voter Preference



This figure shows the relationship between the relative newspaper coverage of the Democratic candidate for president and the Democratic vote share at the county level. Data on newspaper coverage of presidential candidates is from newspaperarchive.com for the period 1944–1960.

Table 1.2 shows the regression results.<sup>12</sup> Columns (1) to (3) present the results from regressions of relative hits on the Democratic vote share and party affiliation of newspapers. The coefficients of the Democratic vote share and political affiliation of newspapers are

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-1 if it is classified as Republican, and 0 otherwise. There are 55 newspapers classified as Democrat and 85 newspapers classified as Republican in the sample. Appendix Table A.1 presents summary statistics. For data description, see Appendix A.1.

<sup>12</sup>To control for time-specific national shocks, I include year fixed effects in all specifications.

statistically significant at .05 level in all specifications. The results show that voter preference and newspapers’ partisan leanings are positively correlated with reporting bias, although the effects are not large in magnitude.

Table 1.2: Partisan Behavior of Newspapers

Dependent Var = Relative Dem Hits			
	(1)	(2)	(3)
Democratic Vote Share		0.087 (0.013)	0.079 (0.013)
Party	0.014 (0.004)		0.008 (0.003)
Observations	649	649	649

Standard errors in parentheses, clustered by newspaper. Year fixed effects included in all columns. The time period is 1944–1960.

The estimate in column (1) indicates that on average a Democratic newspaper devoted 2.8% more articles to Democratic presidential candidates than a Republican newspaper. Column (2) suggests that a newspaper in the most pro-Democratic county in the sample, where a Democratic candidate received 96% of the two party votes, would publish 6% more articles about Democratic candidates than newspapers in the most pro-Republican county, where a Republican candidate received 82% of the votes. The results are similar when I include the two variables together as shown in column (3).

The measure of media bias used in this section is rather crude, as the amount of articles does not tell us how candidates are covered. Media bias, measured in this way, is likely to be more difficult to detect compared to other types of media bias documented in previous studies such as agenda-setting behavior (e.g., Larcinese, Puglisi and Snyder 2011; Puglisi and Snyder 2011) and the use of partisan language (e.g., Gentzkow and Shapiro 2010),<sup>13</sup> because presidential election is a newsworthy event and newspapers would have an incentive to cover presidential candidates from both parties. Therefore, the current measure would work against

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<sup>13</sup>Text analysis would be ideal to document these types of media bias, but, unfortunately, the access to the texts in newspapers in the data source used in this study, newspaperarchive.com, is quite limited.

finding positive results. But the results in Table 1.2 are consistent with newspapers devoting more news space to their favorite candidates.

## The Effect of Television on Electoral Politics

Previous studies suggest that a change in media environment can have a significant impact on politics. Scholars have analyzed entries and exits of various media outlets – newspapers (Mondak 1995; George and Waldfogel 2008; Gentzkow, Shapiro and Sinkinson 2011; Schulhofer-Wohl and Garrido 2013), radio (Strömberg 2004*a*; Campante and Hojman 2013), television (Gentzkow 2006; Prat and Strömberg 2006; Campante and Hojman 2013; Drago, Nannicini and Sobbrío 2014), cable television (DellaVigna and Kaplan 2007; Prior 2007), and internet (Bauernschuster, Falck and Woessmann 2014; Campante, Durante and Sobbrío 2014; Falck, Gold and Heblich 2014) – and have shown that they affect voter behavior and public policy.

As the results of the previous section illustrate, the entry of television brings nationally oriented and politically neutral information to voters. What are the political implications of this change in information environment? In this paper, I investigate the following hypotheses. First, by providing national news, television would increase the saliency of the national issues. Consistent with this expectation, previous studies show that the national forces in U.S. presidential elections became more important from the beginning of the 20th century through the 1950s (Bartels 1998; Aguiar-Conraria, Magalhães and Soares 2013), which coincides with the rise of broadcasting media. In particular, I focus on the national economy. Scholars have shown that media provide voters with information about the state of the economy (Ansolabehere, Meredith and Snowberg 2011), shape their retrospective assessments of the economy and influence vote choice (Hetherington 1996; Nadeau et al. 1999; Sanders and Gavin 2004), and translate their personal experience or perceptions of the economy into political preferences (Mutz 1992; 1994). Although voters can get a sense of how



the national economy is doing based on their personal experiences (e.g., Reeves and Gimpel 2012), media is the only reliable source of information about the overall state of the national economy. Therefore, I expect television to increase the importance of the national economy in presidential elections. More specifically, television would help incumbent presidents, or candidates from the incumbent party, during an economic boom and hurt them during a recession (*Television and Economic Voting Hypothesis*).

Second, since television provides politically neutral news to voters, it would decrease the effect of the partisan press. Although local newspapers were becoming more independent since the late 19th century (e.g., Gentzkow, Glaeser and Goldin. 2006; Petrova 2011), they were still highly partisan during the period of this study, 1944–1964 (e.g., Ansolabehere, Lessem and Snyder 2006). Furthermore, according to *Editor and Publisher Yearbook*, more than 20 percent of all the dailies during this period were affiliated with one of the two major political parties.<sup>14</sup>

Researchers have documented the effect of partisan media on voters’ choices (e.g., Erikson 1976; DellaVigna and Kaplan 2007; Ladd and Lenz 2009; Chiang and Knight 2011; Leite Lopez de Leon 2013).<sup>15</sup> Partisan media can be detrimental to voters especially when they suppress information to promote their political agenda (e.g., Puglisi and Snyder 2011). The formal model in Bernhardt, Krasa and Polborn (2008) discusses how media bias can cause a failure of information aggregation and lead voters to choose the candidate whom they would not have chosen had they received unbiased news. The effect of biased media, however, can be mitigated when voters have an additional source of political information. The Mullainathan and Shleifer (2005) model predicts that “conscientious readers,” who gather information from multiple media outlets, may reduce the effect bias when they have access to multiple sources of information. Therefore, I expect the effect of partisan newspaper to decrease when television enters a newspaper market (*Television and Partisan Newspaper Hypothesis*). In

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<sup>14</sup>For more details about the data, see Appendix A.1.1.

<sup>15</sup>In contrast, Gentzkow, Shapiro and Sinkinson (2011) find evidence that the entry of newspapers increases turnout, they conclude that there is no evidence that partisan newspapers affect party vote shares.

a similar vein, Campante and Hojman (2013) presents evidence that television decreased ideological polarization among U.S. representatives.

## Television and Economic Voting<sup>16</sup>

To test the first hypothesis (*Television and Economic Voting*), I estimate a regression of the following form:

$$\begin{aligned} Incumbent\ Vote_{ct} = & \beta_1 TV_{ct} + \beta_2 \Delta National\ Econ_t + \\ & \beta_3 TV_{ct} \times \Delta National\ Econ_t + \gamma' X_{ct} + \epsilon_{ct}, \end{aligned} \quad (1)$$

where  $Incumbent\ Vote_{ct}$  is the share of the two party vote received by the candidate from the incumbent party running for president in county  $c$  in year  $t$  and  $\Delta National\ Econ_t$  is one-year change in national economic indicators.<sup>17</sup> The vector  $X_{ct}$  includes fixed effects and county level demographic control variables: the total population, population per square mile, the share of white population, the share of females, the share of population living in cities with 25,000 or more people, population aged 25 and older with more than 12 years of education as a share of all the population aged 25 and older, and the log of total dollar value of manufacturing output per-capita.<sup>18</sup>

In the baseline specification, I include county and year fixed effects. The county fixed effects control for time-invariant county attributes<sup>19</sup> and the year fixed effects capture time-

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<sup>16</sup>For data description and summary statistics, see Appendix A.1.

<sup>17</sup>I use two indicators of the national economy: one-year percentage growth in national real per capita income and one-year change in unemployment rate. One-year percent change in unemployment rate is coded such that positive values indicate an improving economy.

<sup>18</sup>Alternatively, I can allow the demographic characteristics of counties before television was introduced to affect the vote differently before and after television. Specifically, I first fix the demographic control variables at the year 1944, when all the counties in the sample did not have television. Then, I interact these variables with  $TV_{ct}$  and include these interaction terms as controls. Note that the main effect of the control variables are excluded with the inclusion of county fixed effects. The results, available upon request, remain similar.

<sup>19</sup>County fixed effects capture the tendency to vote for the incumbent. To control for underlying partisanship of each county, I interact county-fixed effects with a variable indicating the party of incumbent president

specific national shocks, such as popularity of candidates or national events that help or hurt the incumbent. Note that the main effect of  $\Delta National Econ_t$  is omitted with the inclusion of the year fixed effects. In some specifications, I include  $\Delta National Econ_t$  variable and drop the year fixed effects.<sup>20</sup> I standardize  $\Delta National Econ_t$  variable before running regressions, to make the interpretation of the results easier.

The effect of television on economic voting is estimated by  $\beta_3$ . As previously discussed, I expect television to increase the importance of the national economy.  $\beta_3 > 0$  would indicate that an improving national economy increased the vote share received by the incumbent party when television became available.

The assumption behind this identification strategy is that the introduction of television is largely exogenous. According to Gentzkow (2006), two key factors in the introduction of television in the U.S. help the identification strategy. The first is that two plausibly exogenous events, World War II and the television license freeze imposed by the FCC, delayed the expansion of television. During the World War II, the government banned the construction of new television stations. After the war, television expanded rapidly, causing excessive interference of spectrums. In September 1948, the FCC announced a freeze on new television licenses, because it was unable to resolve interference issue at the time. This “freeze” on new license lasted until April 1952.<sup>21</sup>

The second factor is that each television station broadcasts to heterogeneous counties. For instance, Gentzkow (2006) shows that Chicago DMA includes Newton County, IN – a rural, sparsely populated, and relatively poor county – and Cook County, IL – an urban, densely populated, and wealthy county. Therefore, he claims that even though the introduction of television might be related to the characteristics of the DMA as a whole, such as wealth and

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(1 for Democrats and -1 for Republicans). The results, available upon request, remain similar when I use this alternative specification.

<sup>20</sup>The results remain similar when I drop the year fixed effects.

<sup>21</sup>There were new television stations entering the market during the freeze period as they received their licenses before the freeze.

population, it would likely to be unrelated to unobserved characteristics of counties far from the cities where television stations are located.

To ensure that the results are not driven by the difference between the counties that had television earlier and those that had it later, I include demographic control variables in all specifications. In addition, to exploit the fact that each television market includes a heterogeneous set of counties, I match the pre-freeze counties, where television entered before the freeze ended (April 1952), to post-freeze counties, where television was introduced after the freeze, on eight covariates, described as demographic control variables in the text following equation (1).<sup>22</sup>

Although control variables and matching address the concern that the results are due to observed differences between counties that had television earlier and later, there might be unobserved characteristics that bias the estimates. Therefore, I restrict the sample to the pre-freeze counties that are happened to be located around the center of each media market and their neighbors that did not have television before the freeze. More specifically, I pair each pre-freeze county to one post-freeze county based on geographic proximity and demographic similarity. This removes all the media centers and isolated pre and post-freeze counties from the sample. By restricting the sample to these paired counties, I rule out the possibility that the results are driven by observed and unobserved characteristics of the pre and post-freeze counties. Further information on this pairing procedure can be found in Appendix A.2.2.

In addition, I address the concern that unobserved trends might bias the estimates. Consider, for instance, counties with a trend toward the Republican Party. In the sample, the Democratic Party was the incumbent party in earlier years, 1944–1952, and the Republican Party was the incumbent party in later years, 1956–1960. Therefore, time trends in these counties are likely to be positively correlated with pro-incumbent voting patterns. Since the

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<sup>22</sup>I did one to one propensity score matching with a caliper of 0.05. I also tried different calipers and the results were similar. All the results using matched sample are presented in Appendix A.2.1.

entry of television is also positively correlated with time trends as counties move from no television to television, the estimate of  $\beta_3$  can be upward biased. Similarly, the existence of counties with pro-Democratic trends would bias the estimate downward. To address this concern, I include county-specific time trends, allowing me to control for linear time trends in each county.<sup>23</sup>

Finally, I also use a specification where I include state-specific year fixed effects to control for unobserved state-specific factors that might influence the vote share and the introduction of television over time.

Table 1.3 presents the results.<sup>24</sup> In columns (1)–(4) I use one-year change in per capita income and in columns (5)–(8) I use one-year change in national unemployment rate. The results suggest that television increases the saliency of the national economy. The coefficient of  $TV \times \Delta National Econ$  is statistically significant and large in magnitude in all specifications.

Suppose a television station enters a market in a relatively good year. Let one-year change in national per capita income be one standard deviation above the mean (5% growth). According to the estimates in column (2), television increases the vote share of the incumbent party by 4.2% ( $4.5 - 0.3$ ). The magnitude differs depending on specifications but the effect is substantial in all cases. It ranges from 2.2 to 4.8%.

The results are similar when I use one-year change in unemployment.<sup>25</sup> When television becomes available in a relatively good year (0.4% decrease in unemployment rate), it increases the vote share of the incumbent party by 1.4 to 10.2 percentage points. The estimate in column (5) is less reliable because it does not control for year-specific national shocks. More reliable estimates indicate the effect of television on vote share in a good year ranges from

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<sup>23</sup>Specifically, I estimate a regression of the following form:

$$Incumbent Vote_{ct} = \alpha_{0c} + \alpha_{1c} t + \theta_t + \beta_1 TV_{ct} + \beta_2 TV_{ct} \times \Delta National Econ_t + \gamma' X_{ct} + \epsilon_{ct},$$

where  $\alpha_{0c}$  is a county-specific intercept,  $\theta_t$  is a year-specific intercept, and  $\alpha_{1c} t$  is a county-specific time trend. The main effect of  $\Delta National Econ_t$  is absorbed by the year fixed effects.

<sup>24</sup>Appendix Table A.2 provides summary statistics of the variables before standardization.

<sup>25</sup>The sample size is different because the year 1944 is excluded. As mentioned in Appendix A.1.1, unemployment data for 1944 is not comparable to other years.

Table 1.3: Economic Voting and TV in Presidential Elections

	Dependent Var = Incumbent Vote Share							
	Per Capita Income (1944–1964)				Unemployment (1948–1964)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TV	-1.222 (0.758)	-0.347 (0.694)	0.276 (0.553)	0.789 (0.654)	2.290 (0.739)	-2.991 (0.793)	-0.476 (0.655)	-0.602 (0.900)
$\Delta$ National Income	-0.360 (0.171)							
TV $\times$ $\Delta$ National Income	3.439 (0.230)	4.498 (0.615)	1.990 (0.535)	4.010 (0.580)				
$\Delta$ National Unemployment					-6.014 (0.530)			
TV $\times$ $\Delta$ National Unemployment					7.919 (0.554)	4.376 (0.880)	2.532 (0.791)	5.141 (0.999)
<i>Control Variables</i>								
Population (Thousand)	-0.018 (0.006)	-0.020 (0.008)	-0.001 (0.003)	-0.042 (0.026)	-0.016 (0.006)	-0.021 (0.007)	-0.001 (0.003)	-0.102 (0.055)
Pct. Female	1.280 (0.369)	2.255 (0.350)	-1.220 (0.425)	-0.988 (0.617)	2.020 (0.344)	1.144 (0.354)	-1.319 (0.483)	-2.781 (1.575)
Pct. Urban	0.036 (0.003)	0.002 (0.003)	0.010 (0.002)	0.008 (0.003)	0.032 (0.007)	0.028 (0.007)	0.020 (0.006)	-0.006 (0.009)
Population Per sq. Mile	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.001 (0.000)	0.001 (0.000)	0.001 (0.001)	0.007 (0.005)
Pct. White	-2.752 (0.203)	-2.649 (0.194)	0.187 (0.124)	3.550 (0.518)	-1.640 (0.216)	-1.488 (0.223)	0.418 (0.152)	6.894 (1.025)
Pct. 21+	-2.466 (0.133)	-1.901 (0.147)	0.320 (0.116)	-0.962 (0.456)	-2.413 (0.141)	-2.243 (0.144)	0.166 (0.122)	-1.562 (0.840)
Pct. 12+ Yrs of Education	0.155 (0.065)	0.628 (0.130)	-0.117 (0.097)	-1.693 (0.218)	-0.095 (0.069)	-0.608 (0.146)	-0.227 (0.111)	-3.236 (0.408)
Log Per Capita Manufacturing Output	0.182 (0.584)	0.898 (0.592)	1.999 (0.407)	3.016 (0.957)	1.219 (0.585)	0.677 (0.603)	1.776 (0.460)	4.702 (1.492)
Fixed Effects	County	County	County	County	County	County	County	County
County Trends	No	Year	State-Year	Year	No	Year	State-Year	Year
Observations	14881	14881	14881	14881	12561	12561	12561	12561

Standard errors in parentheses, clustered by county.  $\Delta$ National Income and  $\Delta$ National Unemployment are standardized.

1.4 to 4.5 percentage points.

Table 1.3 shows that the effect of the national economy on the vote share of the incumbent presidential party increases when television becomes available. However, a possible alternative explanation to these results is that early television adopting counties are becoming more tied to the national economy. For instance, if the relationship between the state and the national economy becomes stronger after television enters, people would vote with the national economy more because their state economy are more affected by the national economy not because they get more information about the national economy from television. In Appendix A.2.3.1, I present evidence that the effect of the national economy on the state economy does not become stronger after the entry of television.

In addition, I test whether television affects how people vote based on the state economy. Previous studies suggest that people use local information to assess the state of the national economy (e.g., Reeves and Gimpel 2012). If television increases the saliency of the national economy by providing information about national politics, it should not affect the importance of the state economy.

To examine whether television affects how people vote based on the state economy I include the state level economy variable. I estimate the model of the following form,

$$\begin{aligned} Incumbent\ Vote_{ct} = & \beta_1 TV_{ct} + \beta_2 \Delta National\ Econ_t + \beta_3 TV_{ct} \times \Delta National\ Econ_t + \\ & \beta_4 \Delta State\ Econ_{st} + \beta_5 TV_{ct} \times \Delta State\ Econ_{st} + \gamma' X_{ct} + \epsilon_{ct}, \end{aligned} \quad (2)$$

where  $s$  indexes state.

The results are shown in Table 1.4.<sup>26</sup> In columns (1)–(4) I use state income variable and in columns (5)–(8) I also include national income variable. Columns (5)–(8) confirm the findings in Table 1.3: holding  $\Delta National\ Income$  at one standard deviation above the mean value, television would increase the vote share of the incumbent party by 2.5 to 4.1

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<sup>26</sup>I only use one-year change in per capita income, because unemployment data at the state level is not available for the period of this study.

percentage points.

Interestingly, television does not affect how people vote based on the state economy. Although the coefficient of  $TV \times \Delta State Income$  is positive in columns (1)–(4), it becomes insignificant with the inclusion of  $TV \times \Delta National Income$  except in column (8). The coefficient in column (8) is substantially smaller than the coefficient of  $TV \times \Delta National Income$  variable.

Although the findings in this section have implications for democracy, I remain neutral about whether they are good or bad news. On one hand, consistent with the literature on the role of information in improving political accountability (e.g., Snyder and Strömberg 2010), my findings suggest that better access to political news can help voters hold politicians accountable. On the other, the results can be interpreted as additional evidence that the media induce voters to base their decisions on the election-year economy (e.g., Healy and Lenz 2014), which may provide greater incentive to politicians to manipulate the economy and create an election-year boom, as the literature on political business cycle suggests (e.g., Drazen 2001). Since national economic conditions are influenced by events beyond politicians' control, such as oil shocks, the results may also imply that voters reward and punish incumbent politicians based on their lucks (e.g., Achen and Bartels 2004). The welfare consequences of television would depend on factors such as how much control politicians have over the economy and whether the election-year economy is a good indicator of the future economy.

## Television and Partisan Newspapers<sup>27</sup>

To test whether television decreases the association between of partisan newspapers and the vote (*Television and Partisan Newspaper Hypothesis*), I estimate models of the following

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<sup>27</sup>For data description and summary statistics, see Appendix A.1.



Table 1.4: Economic Voting and TV in Presidential Elections (with State Economy Variable)

	Dependent Var = Incumbent Vote Share							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TV	-1.108 (0.698)	-0.921 (0.683)	0.054 (0.556)	0.484 (0.636)	-0.710 (0.742)	-0.409 (0.700)	0.240 (0.555)	0.836 (0.656)
$\Delta$ State Income	2.130 (0.175)	1.715 (0.151)		0.312 (0.097)	2.339 (0.171)	1.753 (0.152)		0.336 (0.096)
$TV \times \Delta$ State Income	1.417 (0.301)	0.858 (0.337)	0.499 (0.633)	1.310 (0.337)	-0.450 (0.345)	0.475 (0.336)	-0.854 (0.793)	0.980 (0.344)
$\Delta$ National Income					-1.018 (0.155)			
$TV \times \Delta$ National Income					3.164 (0.253)	3.624 (0.623)	2.396 (0.675)	3.341 (0.603)
<i>Controls</i>								
Population (Thousand)	-0.018 (0.006)	-0.020 (0.008)	-0.000 (0.003)	-0.038 (0.025)	-0.018 (0.006)	-0.021 (0.008)	-0.000 (0.003)	-0.041 (0.026)
Pct. Female	1.171 (0.360)	2.041 (0.348)	-1.214 (0.425)	-1.066 (0.615)	1.152 (0.368)	2.029 (0.348)	-1.224 (0.425)	-1.052 (0.615)
Pct. Urban	0.029 (0.002)	0.002 (0.003)	0.010 (0.002)	0.008 (0.003)	0.034 (0.003)	0.002 (0.003)	0.010 (0.002)	0.008 (0.003)
Population Per sq. Mile	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.002)
Pct. White	-2.624 (0.196)	-2.585 (0.192)	0.186 (0.124)	3.445 (0.515)	-2.644 (0.198)	-2.577 (0.192)	0.187 (0.124)	3.473 (0.515)
Pct. 21+	-2.106 (0.128)	-1.784 (0.144)	0.314 (0.116)	-0.853 (0.452)	-2.253 (0.133)	-1.774 (0.145)	0.323 (0.116)	-0.868 (0.454)
Pct. 12+ Yrs of Education	0.211 (0.063)	0.561 (0.129)	-0.120 (0.097)	-1.690 (0.217)	0.177 (0.064)	0.562 (0.128)	-0.116 (0.097)	-1.684 (0.218)
Log Per Capita Manufacturing Output	0.507 (0.571)	1.039 (0.589)	2.002 (0.407)	2.976 (0.956)	0.500 (0.579)	1.033 (0.588)	2.000 (0.407)	2.976 (0.955)
Fixed Effects	County	County	County	County	County	County	County	County
County Trends	No	Year	State-Year	Year	No	Year	State-Year	Year
Observations	14881	14881	14881	14881	14881	14881	14881	14881

Standard errors in parentheses, clustered by county.  $\Delta$ National Income and  $\Delta$ State Income are standardized. The time period is 1944–1964.

form

$$\begin{aligned} DemVote_{ct} = & \beta_1 TV_{ct} + \beta_2 RelativeDemCirc_{ct} + \\ & \beta_3 TV_{ct} \times RelativeDemCirc_{ct} + \gamma'X_{ct} + \epsilon_{ct}, \end{aligned} \quad (3)$$

where  $DemVote_{ct}$  is the share of the two party vote received by the Democratic candidate running for president in county  $c$  in year  $t$ , and  $RelativeDemCirc_{ct}$  is the total circulation of Democratic newspapers minus the circulation of Republican newspapers divided by the population in county  $c$  in year  $t$ .  $RelativeDemCirc_{ct}$  captures the relative strength of partisan newspapers in each county in each year. The vector  $X_{ct}$  includes county level control variables and fixed effects as described in the text following equation (1).

The influence of partisan newspapers is captured by  $\beta_2$ . I expect  $\beta_2 > 0$ , which would imply partisan newspapers affect the party vote share. However, it does not necessarily estimate the causal impact of partisan newspapers on votes, because circulation of Democratic or Republican newspapers will be large in areas where the share of voters leaning toward the respective party is higher.

The impact of the introduction of television is estimated by  $\beta_3$ . If television mitigated the effect of partisan newspapers, we will observe  $\beta_3 < 0$ , which implies that the correlation between partisan newspapers and vote share became weaker when television entered a market.

I also report the results from regressions with state-specific year fixed effects as well as county-specific year trends. Again, to make the interpretation easier I standardize the relative Democratic newspaper circulation variable before running regressions.<sup>28</sup>

Table 1.5 presents the results. Columns (1)–(3) show how circulation of partisan newspapers related to vote share. As expected, the Democratic vote share was higher in counties with high Democratic newspaper circulation, although the coefficient becomes smaller and

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<sup>28</sup>Summary statistics (before standardization) are presented in Appendix Table A.3.

statistically insignificant with the inclusion of state-year fixed effects and county-specific time trends.

Columns (4)–(6) show how television changes the relationship between partisan newspaper and the vote share. The results show that television reduces the Democratic or Republican vote share in counties with high Democratic or Republican newspaper circulation respectively. The coefficient of  $TV \times Relative\ Dem\ Circ$  is statistically significant at .05 level in all specifications.

The point estimates in column (4) suggest that when television is not available, one standard deviation increase in *Relative Dem Circ*, .09 more copies of Democratic newspaper per capita, is associated with an increase in the Democratic vote share by 1.3%. When television becomes available, however, one standard deviation increase in *Relative Dem Circ* decreases the vote share by .1%. Therefore, one standard deviation change in *Relative Dem Circ* is associated with 1.4% difference between counties with television and no television.

Consider, for instance, a county with relatively high pro-Democratic newspaper circulation, that is, it has one standard deviation above the mean value (.09 copies of Democratic newspaper per capita) and the mean county in terms of partisan newspaper circulation (.01 copies of Republican newspaper per capita). According to the point estimates in column (4), the entry of television narrows the gap in vote share between these two counties by 1.4%.

Figure 1.3 presents this graphically. The figure plots the predicted Democratic vote share as a function of *Relative Dem Circ* variable based on the point estimates in column (4) (all the variables except *Relative Dem Circ* and *TV* are held at their mean values). Figure 1.3 shows that television mitigates the effect of partisan newspapers on voters. The interactive effect of partisan newspaper circulation and television decreases when I include state-year fixed effects and county-specific time trends, but it is still substantial: television narrows the gap by .48 to .53%.

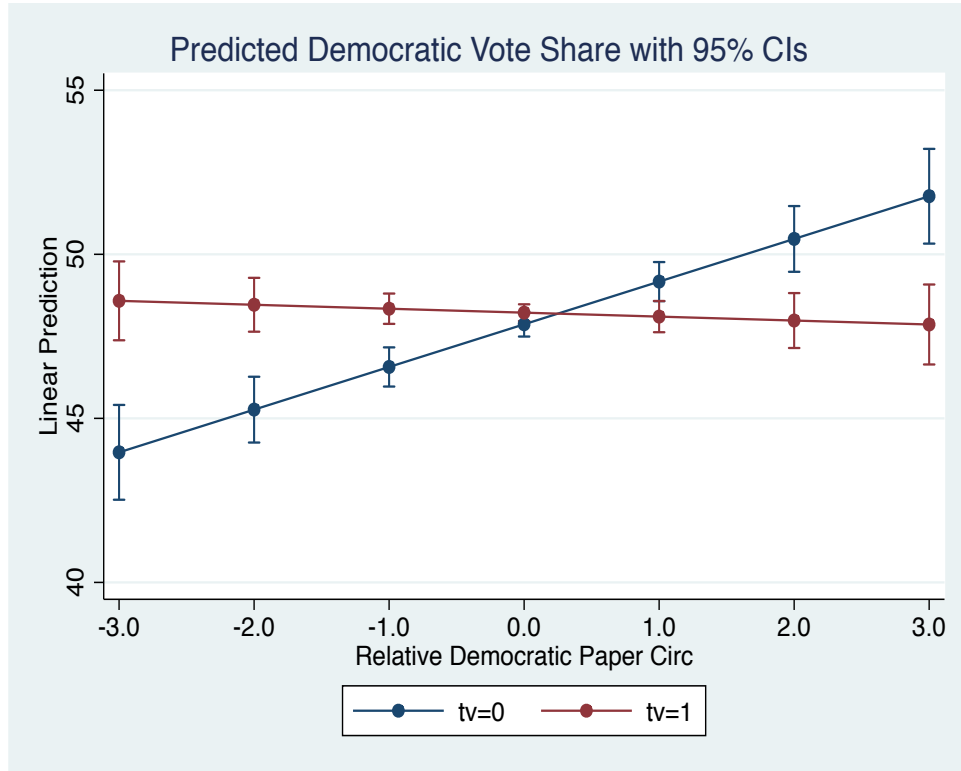
An alternative explanation to these findings could be that television enters to places where newspaper readers are becoming less partisan. In Appendix A.2.3.2, I present evidence that

Table 1.5: The Effect of Newspaper and TV on Democratic Vote Share in Presidential Elections

	Dependent Var = Democratic Vote Share					
	(1)	(2)	(3)	(4)	(5)	(6)
TV				0.354 (0.321)	0.434 (0.253)	1.172 (0.338)
Relative Democratic Paper Circ	0.535 (0.195)	0.123 (0.111)	0.133 (0.185)	1.301 (0.237)	0.393 (0.130)	0.415 (0.220)
TV $\times$ Relative Democratic Paper Circ				-1.421 (0.229)	-0.492 (0.130)	-0.507 (0.226)
<i>Controls</i>						
Population (Thousand)	-0.010 (0.006)	-0.003 (0.002)	0.041 (0.018)	-0.010 (0.006)	-0.003 (0.002)	0.043 (0.018)
Pct. Female	0.816 (0.420)	-0.552 (0.251)	0.027 (0.636)	0.709 (0.408)	-0.557 (0.250)	-0.033 (0.632)
Pct. Urban	0.019 (0.003)	0.010 (0.002)	0.023 (0.004)	0.019 (0.003)	0.010 (0.002)	0.023 (0.004)
Population Per sq. Mile	0.004 (0.002)	0.003 (0.001)	0.001 (0.002)	0.004 (0.002)	0.003 (0.001)	0.001 (0.002)
Pct. White	-0.949 (0.210)	0.002 (0.132)	0.055 (0.541)	-0.934 (0.208)	-0.008 (0.133)	0.059 (0.541)
Pct. 21+	-1.191 (0.131)	-0.012 (0.097)	-0.365 (0.271)	-1.119 (0.128)	-0.005 (0.097)	-0.425 (0.269)
Pct. 12+ Yrs of Education	0.389 (0.127)	-0.179 (0.086)	0.343 (0.151)	0.385 (0.125)	-0.169 (0.085)	0.302 (0.153)
Log Per Capita Manufacturing Output	-2.731 (0.724)	0.550 (0.375)	1.116 (0.758)	-2.611 (0.718)	0.559 (0.375)	1.138 (0.757)
Fixed Effects	County	County	County	County	County	County
County Trends	Year	State-Year	Year	Year	State-Year	Year
	No	No	Yes	No	No	Yes
Observations	4848	4848	4848	4848	4848	4848

Standard errors in parentheses, clustered by county. Relative Democratic Paper Circ is standardized. The time period is 1944–1964.

Figure 1.3: TV and the Effect of Partisan Newspaper on Vote Share



This figure plots the predicted Democratic vote share as a function of *Relative Dem Circ* variable based on the point estimates in column (4) of Table 1.5, holding all the variables except *Relative Dem Circ* and *TV* at the mean values. The time period is 1944–1964.

this is not the case.

The results in this section suggest that television mitigates the effect of the partisan press. I show that the correlation between the party vote and the circulation of partisan newspaper decreases when television becomes available. Previous research on media bias reveal that competition among media outlets can decrease the degree of media bias (e.g., Besley and Prat 2006; Gentzkow 2006).<sup>29</sup> Consistent with these studies, the results in this section suggest that the effect of biased media can be mitigated when voters have an alternative source of political information.

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<sup>29</sup>On the contrary, theoretical models of Mullainathan and Shleifer (2005) and Baron (2006) predict that media bias would persist, or even become stronger, in competitive media markets.

## Television and Substitution among Media

The results in previous sections suggest that television affects voters by adding new political information that is nationally oriented and less partisan. In this section, I explore the alternative hypothesis that the results are driven by crowding out political information (e.g., Gentzkow 2006). If people substitute television for newspapers, they would receive less political information, especially on local politics. The national economy may become more salient because people have less local information. Similarly, the effects of partisan newspapers may decrease not because people receive new information that is politically neutral but because they stop reading partisan newspapers. Below, I present evidence contrary to this hypothesis: television is not associated with a sharp drop in newspaper circulation, and people continue to read about campaigns from newspapers even after they have access to television.

I first test whether television caused a drop in newspaper circulation. I regress county level circulation per thousand on television dummy variable and county-level controls as in equation (1) with various fixed effects as well as county-specific time trends. To allow the effect of television to grow over time linearly, following Gentzkow (2006), I also define  $TVYear_{ct} = I(t > \tau_c)(t - \tau_c)$ , where  $\tau_c$  is the year television is introduced in county  $c$  and  $I(\cdot)$  is the indicator function.

Table 1.6 present the results.<sup>30</sup> In columns (1)–(3) I use television dummy variable and in columns (4)–(6) I use television year variable. The estimates suggest television had no effect on newspaper circulation. The coefficients of  $TV$  and  $TVYear$  variables are not significant at .05 level in all specifications. This finding is contrary to Gentzkow (2006), who claims that television decreases newspaper circulation. While the results reported in Gentzkow (2006) show the difference in circulation per thousand between the states that had television earlier and the ones where television entered later diminished over time, they do not necessarily

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<sup>30</sup>Summary statistics are provided in Appendix Table A.4.

Table 1.6: TV and Newspaper Circulation

	Dependent Var = Circulation Per Thousand					
	(1)	(2)	(3)	(4)	(5)	(6)
TV	-3.679 (3.302)	-5.335 (2.673)	-1.636 (3.153)			
TV Year				-1.712 (1.097)	-1.171 (1.039)	0.055 (2.863)
<i>Controls</i>						
Population (Thousand)	-0.000 (0.000)	-0.000 (0.000)	0.001 (0.001)	-0.000 (0.000)	-0.000 (0.000)	0.001 (0.001)
Pct. Female	11.110 (2.850)	8.216 (2.826)	9.851 (5.480)	10.926 (2.900)	8.320 (2.834)	9.775 (5.328)
Pct. Urban	-0.028 (0.042)	-0.021 (0.046)	-0.158 (0.087)	-0.029 (0.042)	-0.019 (0.045)	-0.157 (0.084)
Population Per sq. Mile	0.015 (0.045)	0.017 (0.043)	-0.036 (0.168)	0.017 (0.046)	0.017 (0.044)	-0.036 (0.169)
Pct. White	0.715 (1.299)	2.515 (1.920)	8.251 (7.434)	0.292 (1.382)	2.316 (1.953)	8.248 (7.364)
Pct. 21+	8.075 (0.856)	10.030 (1.035)	9.752 (3.084)	7.894 (0.875)	9.820 (1.066)	9.640 (3.013)
Pct. 12+ Yrs of Education	1.763 (1.085)	2.099 (0.939)	1.150 (1.966)	1.753 (1.095)	2.052 (0.945)	1.083 (1.907)
Log Per Capita Manufacturing Output	4.462 (4.052)	2.316 (4.179)	4.542 (5.552)	4.430 (4.039)	2.480 (4.168)	4.488 (5.578)
Fixed Effects	County Year	County State-Year	County Year	County Year	County State-Year	County Year
County Trends	No	No	Yes	No	No	Yes
Observations	5484	5484	5484	5484	5484	5484

Standard errors in parentheses, clustered by county. The time period is 1944–1964.

show that newspaper circulation dropped after the entry of television.

To examine how television affects individuals' media choice, I use the American National Election Study (NES) survey data. Following Gentzkow (2006), I use the following questions:

Did you read about the campaign in any newspaper?

Did you watch any programs about the campaign on television?

The independent variables are dummies, which is 1 for positive answers and 0 otherwise. I regress these variables on *TV*, county level controls described in the text following equation (1), and individual level control variables: dummies for white, sex, age 21 to 34, age 65 and above, married, more than high school education, highest income category, and party identification.

Ideally, we can investigate how individuals change their media consumption behavior when television becomes available using panel survey data. There is a panel survey data for the sample period of this study, the NES panel study 1956–1958–1960. But, unfortunately, since more than 90% of the individuals in the sample of this study belonged to counties where television were available, there is little variation in the television variable. Instead of using panel survey, I combine the 1952, 1956, and 1960 NES data and include county fixed effects, which allow me to control for unobserved county level attributes.

Table 1.7 presents the results.<sup>31</sup> Columns (1)–(3) and columns (4)–(6) show the results for newspaper and television use respectively. Column (1) and (4) replicates Gentzkow (2006), where I use the year 1952 only. In columns (2)–(3) and (5)–(6), I use the years 1952 to 1960 with year and county fixed effects. The estimates in column (1) are consistent with Gentzkow (2006) and suggest people living in counties with access to television in 1952 are less likely to report that they receive campaign information from newspapers.<sup>32</sup> However, the effect of television on newspaper consumption becomes insignificant when I include county and year

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<sup>31</sup>Summary statistics are reported in Appendix Table A.5.

<sup>32</sup>The estimate are slightly different, possibly due to the fact that I use county level controls while Gentzkow (2006) use DMA level controls.



Table 1.7: TV and Media Use

	Dependent Var =					
	Newspaper			TV		
	(1)	(2)	(3)	(4)	(5)	(6)
TV	-0.131 (0.035)	-0.087 (0.031)	0.005 (0.048)	0.399 (0.057)	0.362 (0.067)	0.369 (0.064)
<i>Controls (Individual)</i>						
Democrat	0.033 (0.030)	0.039 (0.018)	0.041 (0.020)	0.024 (0.031)	0.045 (0.016)	0.045 (0.017)
Republican	0.063 (0.030)	0.045 (0.018)	0.045 (0.019)	0.006 (0.032)	0.029 (0.017)	0.011 (0.016)
Male	0.076 (0.021)	0.094 (0.014)	0.096 (0.014)	0.046 (0.024)	0.032 (0.014)	0.037 (0.014)
White	0.142 (0.053)	0.160 (0.034)	0.162 (0.037)	0.039 (0.052)	0.108 (0.029)	0.134 (0.028)
Age 21 to 34	-0.080 (0.027)	-0.058 (0.015)	-0.056 (0.015)	-0.020 (0.026)	0.012 (0.015)	0.013 (0.015)
Age 65+	-0.017 (0.030)	-0.013 (0.022)	-0.024 (0.022)	-0.073 (0.033)	-0.069 (0.024)	-0.070 (0.024)
Married	0.008 (0.026)	0.009 (0.019)	0.000 (0.018)	0.099 (0.031)	0.073 (0.019)	0.071 (0.020)
High School Education	0.160 (0.024)	0.180 (0.018)	0.170 (0.018)	0.120 (0.024)	0.099 (0.014)	0.096 (0.014)
Highest Income Category	0.015 (0.034)	0.068 (0.021)	0.072 (0.020)	0.056 (0.057)	0.049 (0.023)	0.054 (0.024)
<i>Controls (County)</i>						
Population (Thousand)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Pct. Female	-0.029 (0.010)	-0.021 (0.007)	-0.017 (0.038)	0.011 (0.016)	0.009 (0.014)	-0.064 (0.037)
Pct. Urban	-0.001 (0.001)	-0.002 (0.001)	0.003 (0.006)	-0.003 (0.002)	-0.001 (0.001)	-0.002 (0.009)
Population Per sq. Mile	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Pct. 21+	0.015 (0.005)	0.006 (0.003)	-0.003 (0.015)	-0.008 (0.008)	0.007 (0.004)	0.022 (0.015)
Pct. 12+ Yrs of Education	0.003 (0.002)	0.005 (0.001)	0.020 (0.008)	0.002 (0.003)	-0.000 (0.002)	0.006 (0.014)
Log Per Capita Manufacturing Output	0.018 (0.012)	0.026 (0.007)	-0.051 (0.065)	0.076 (0.019)	0.034 (0.010)	0.103 (0.088)
Fixed Effects						
Year	1952	Year 1952–1960	County Year 1952–1960	1952	Year 1952–1960	County Year 1952–1960
Observations	1413	3905	3905	1413	3905	3905

Standard errors in parentheses, clustered by county.

fixed effects. As shown in column (3), the coefficient of TV is close to zero. This is not likely due to the measurement errors, which may bias the estimates toward zero. The estimates in columns (4)–(6) are similar in all specifications: respondents are about 36 to 40% more likely to report that they receive campaign information from television.

The analyses in this section show that the entry of television did not cause voters to substitute away from newspapers. I found no evidence that television caused a huge drop in newspaper circulation. In addition, the evidence from the NES data shows that respondents are not less likely to receive campaign information from newspapers when they have access to television.

I do not rule out possibilities that people might pay less attention to local politics or they might discount local issues when television becomes available.<sup>33</sup> But the results in this section suggest television does not necessarily reduce the amount of available information about politics.

## Conclusion

Scholars have expressed concerns about the negative effects of television on politics. They have claimed that television steals time from social activities (Putnam 2000) and crowds out information about local politics (Gentzkow 2006). In this paper, I instead have focused on what television brings to politics by investigating the impact of nationally oriented and politically neutral information on electoral politics. I found that when television becomes available, it increases the incumbent presidential party’s share of the vote when the national economy is doing well and decreases it when the economy is weak. I also found that the introduction of television decreases the effect of partisan newspapers on voters. Finally, I showed that people do not switch from newspaper to television when television enters a

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<sup>33</sup>Consistent with Gentzkow (2006), I find that voters are less likely to name candidates for U.S. representative correctly when television enters. This result is robust to the inclusion of county and year fixed effects. The results are available upon request.

newspaper market. Taken together, the results are consistent with the view that television provides more information to voters and helps voters in their decision making. They also suggest that the effect of biased media can be mitigated when voters have an alternative source of political information.

I do not rule out the possibility that television can still lead to bad decisions. When voters receive new information filled with images, they may discount other information regarding issues and the performance of politicians, and may vote based on more superficial considerations such as candidates' appearance (Lenz and Lawson 2011). In addition, as previously mentioned, television may provide a perverse incentive to politicians to manipulate the economy to make it look better during election years.

The results of this study suggest, however, that television may not be as detrimental to voters as previously thought. It can even be beneficial, at least from an informational perspective. By providing new information to voters, it can assist voters in making more informed decisions.

## Chapter 2. Newspaper Market Structure and Behavior: Partisan Coverage of Political Scandals in the U.S. from 1870 to 1910

How does media market structure affect what media outlets do? Does more competition lead to more intensive and accurate reporting (as in Besley and Prat 2006, and Gentzkow and Shapiro 2008), more “soft news” rather than “hard news” (as in Zaller 1999), more product differentiation and market segmentation (as in Mullainathan and Shleifer 2005), or something else?

In this paper, we focus on the effect of competition on partisan bias in coverage. We investigate this issue in the context of U.S. newspapers around the turn of the 20th century, from 1870 to 1910. This time period is especially interesting for three reasons: (1) newspapers and magazines were essentially the only mass media outlets, which means both that there was considerable variation in the media environment across geographic areas of the U.S., and that we can measure this variation accurately; (2) most newspapers were highly partisan, especially during the early part of our period of study; and (3) there was a noticeable trend towards independent newspapers over the course of the period, and therefore temporal variation in media market structure that we can exploit.

To measure bias, we focus on the agenda setting behavior of newspapers, that is, the degree to which journalists and editors cover certain topics while ignoring others, in a way that favors a political party or ideological position (e.g., Larcinese, Puglisi and Snyder 2011; Puglisi and Snyder 2011). More specifically, we study the intensity with which different newspapers cover different scandals. It is relatively easy to identify scandals in a replicable manner (we use a specific set of sources and search terms to do this), and it is also easy to count the number of newspaper stories devoted to a given scandal relatively accurately (we use specific search strings to do this). Also, scandals involving politicians have clear partisan

implications – they are “bad news” for the individual politicians implicated, and also, by association, are bad news for the party to which the implicated politicians belong.

Our sample contains 157 newspapers (from the *America’s Historical Newspapers* online archive) and 121 scandals. Approximately 60% of the scandals involve Republican politicians. We have collected the data on the number of articles devoted to each scandal in each newspaper. In addition, we have collected the total number of articles published by each newspaper during the period of each scandal. We use it to scale the number of articles devoted to the scandal itself. We have also collected data on the partisanship and circulation for all competing newspapers in the towns and counties of each newspaper in our sample. This allows us to construct measures of the media market structure for each newspaper in our sample.

Our main results indicate that newspaper bias, both in favor of the newspaper’s political party and against the opposition party, is statistically significant, substantively meaningful, and in the expected direction. Partisan newspapers publish more articles about scandals involving politicians from the opposition party, and they print fewer articles about scandals involving politicians from their own party, relative to independent newspapers.

Perhaps more interestingly, we also find that as the level of competition faced by a newspaper increases, the bias exhibited – both against the opposition party and in favor of the newspaper’s own party – decreases. Consider a newspaper in a monopoly market. On average, this newspaper would publish 90% more articles when a scandal involves a politician of the opposite party than when the scandal does not. By contrast, if a newspaper faces four competitors, then the degree of bias is only half as large as when it faces none. The results hold strong even after controlling for county level demographics, as well as the underlying partisanship of voters in each newspaper’s county, and time trends.

We first discuss the existing literature in the following section. Subsequently we describe the data and empirical strategy. We then present the main results and robustness checks we implemented. Finally, we conclude with a short discussion of the broader implications of the

results for research on media competition and bias and possible extensions to our study.

## Previous Literature

Scholars have attempted to measure bias in several different ways.<sup>34</sup> In this paper, we measure bias as the degree to which journalists and editors cover certain topics while ignoring others, in a way that favors a political party or ideological position. A number of previous studies have documented this type of media bias (e.g., Groeling and Kernell 1998; Groeling 2008; Larcinese, Puglisi and Snyder 2011; Puglisi 2011; Puglisi and Snyder 2011; Soroka 2012).

The agenda setting bias of newspapers can have large effects on voters (e.g., McCombs and Shaw 1972). In fact, by exploiting their agenda-setting power, actors on the supply side of the media market can have strong and potentially harmful effects on the audience, especially if they aim at suppressing information. This is the case, because consumers find it difficult – if not impossible – to distinguish the scenario “I did not see any news about X today because nothing important happened regarding X” from the less benign scenario “I did not see any news about X today because, although something important happened, the media decided not to publish it.” Game theoretic models by Puglisi (2004), Baron (2006), Bernhardt, Krasa and Polborn (2008), Anderson and McLaren (2012), and Petrova (2012) all incorporate precisely this source of media bias, and show its effects on public policy decisions.<sup>35</sup>

Why does media bias exist and does competition reduce bias? A number of formal models provide different accounts of media bias, and make different predictions regarding whether market competition reduces bias. The model in Baron (2006) gives a supply-side explanation of why media bias may persist in competitive media markets. According to the model, a news

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<sup>34</sup>For survey of the literature, see Groeling (2013) and Prat and Stromberg (2013).

<sup>35</sup>Alternatively, media bias can also be formalized in a spatial theory framework (e.g., Duggan and Martinelli 2011).

organization may lower the cost of hiring by granting discretion to journalists.<sup>36</sup> However, since skepticism of customers about media bias forces the news organization to lower price, it tolerates bias only if gains from the supply side is greater than the losses from the demand side. Therefore, media bias is consistent with profit maximization and may persist with competition.

On the demand-side, media bias may persist when readers prefer partisan news. In the Mullainathan and Shleifer (2005) model, readers hold biased beliefs and want to hear stories consistent with their prior views. The model predicts an increase in competition may make media bias even worse, as newspapers cater to the taste of readers more aggressively to carve out a share of the market and make higher profits. Similarly, the Anand, Di Tella and Galetovic (2007) model also predicts that competition would not necessarily reduce media bias. They assume that the facts contained in news are not always fully verifiable. When the facts are not verifiable, the media market becomes a differentiated product market and media outlets cater to the preferences of readers. Thus, competition does not eliminate media bias.

In contrast, competition may decrease media bias if consumers value accuracy. In the Gentzkow and Shapiro (2006) model, media bias emerges even when consumers only care about learning the truth, because media outlets want to slant their reports toward what customers believe to build a reputation of being accurate. In competitive media markets, however, readers have alternative sources of information to check the accuracy of a given outlet, thus media outlets have weaker incentives to distort the news.

On the supply-side, competition may reduce the bias if media bias arises because the government tries to capture the media. In the Besley and Prat (2006) model, the government attempts to bribe media outlets to suppress bad news. When the number of media outlets increases, however, it becomes more costly for the government to bribe media outlets.

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<sup>36</sup>The assumption is that if journalists can advance their careers or be influential by using the discretion granted by a news organization, they are willing to work for lower wages.

Therefore, competition prevents media capture and reduces bias.

To summarize, competition can decrease media bias if consumers value accuracy and competition makes suppression of information costly for media outlets or the government. In contrast, media bias may persist in competitive markets when readers or viewers prefer partisan information, the news events contain unverifiable facts, or media outlets can hire journalists at a lower wage by granting discretion.

We expect competition would reduce bias in newspaper coverage of scandals for the following reasons. First, the growth of the newspaper market during the time period of this study, 1870–1910, would make it more costly for newspapers to tolerate bias. Consistent with this expectation, Petrova (2011) presents evidence that the growth of the advertising market during the 19th century contributed to the rise of independent media. The author analyzes the link between potential advertising revenue across U.S. cities and entry and exit of partisan and independent newspapers during the 19th century and finds that markets with high advertising revenues are likely to have independent newspapers. In a similar vein, Gentzkow (2006) study how U.S. newspapers covered the Crédit Mobilier scandal in the early 1870s and the Teapot Dome scandal in the 1920s. The authors note that in the period between these scandals technological progress in the printing industry, coupled with the contemporaneous increase in the population and income of U.S. cities, induced an enormous growth in the size of the newspapers’ market. In the competition for market shares and advertising revenue, newspapers faced strong incentives to cut the ties with political parties and become (at least formally) independent. The authors find that the coverage of the Crédit Mobilier scandal – which occurred in a period dominated by partisan newspapers – was more biased than the coverage of Teapot Dome – which occurred at a time when fewer dailies were directly linked to political parties.

Second, scandals are verifiable news events.<sup>37</sup> Therefore, if a newspaper suppresses infor-

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<sup>37</sup>In contrast, an example of unverifiable news story is “Bill Clinton’s effectiveness as a President.” (Anand, Di Tella and Galetovic 2007; p.641)



mation about a scandal in a competitive market, one of its competitors can break the news and damage the newspaper’s reputation. Also, when newspapers face competition, especially from a newspaper associated with the opposition party, then they must worry about “spin control,” and may find themselves devoting a substantial amount of coverage to scandals – even scandals involving politicians in the party to which they are attached – in order to respond to especially critical articles published in the opposition party’s newspapers.

While theory can guide us to some degree, the effect of market competition on media bias is ultimately an empirical question. To our knowledge, our paper is one of the first attempts to estimate the relationship between competition and media bias directly on a large-scale basis.<sup>38</sup>

## Data and Measures

This paper studies how the media market structure present in the period 1870-1910 in the U.S. influenced how and whether partisan newspapers covered political scandals. In order to do so we put together a dataset with detailed information for 121 political scandals, including the partisanship of the politician involved and the type of each scandal (fraud, bribery, corruption, etc.). Additionally, we collected the number of articles about these scandals published by the 157 newspapers, and included descriptive information not only for these newspapers, but also for their local competition. What follows is a description of our data sources and the methods we used to build each part of the dataset.

### Scandals

There is no exhaustive list of political scandals for the period we are studying. We therefore constructed our own list using three sources. The result is a sample of 121 scandals. Ap-

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<sup>38</sup>Puglisi and Snyder (2011) find a negative but statistically insignificant effect of competition on media bias. Hong and Kacperczyk (2010) tests whether competition reduces reporting bias in the market for security analyst earnings forecasts. They show mergers of brokerage houses are positively correlated with optimism bias in reporting, which is consistent with the hypothesis that competition reduces bias.

pendix Table B.1 lists each scandal, including the sources used to identify it. Some of these scandals involve more than one politician, and some politicians were involved in more than one scandal. In these cases we treat each politician as a separate observation, as well as each scandal in which a same politician was involved.

The first source is the combined archives of five of the largest daily newspapers in the U.S. at the time of study. Specifically, using ProQuest’s archive of articles of the *Chicago Tribune*, *Atlanta Constitution*, *New York Times*, *San Francisco Chronicle* and *Washington Post*, we conducted searches for all articles using a set of search terms that referred to different political offices (senator, mayor, etc.) as well as a number of offenses and legal actions that could be taken against them (words such as bribe, corruption, fraud, arrest, trial, etc.).<sup>39</sup> We restricted attention to scandals in which official legal action took place or which appeared in two or more of the five newspapers.

We chose these five newspapers to help identify scandals based on four criteria. First, all of them were large and well established newspapers at the time. Second, they were located in five of the largest cities in the country at the time, where they faced highly competitive media markets, making them more likely to report scandals from both parties. Third, they broadly cover all regions of the country – northeast, midwest, south, and west – so even though each newspaper exhibits a regional bias, most of the country should be well covered by the five of them combined. Finally, we could collect articles from them using the same search string and search engine.

We do not include any of the five newspapers used to help identify scandals in our analysis, since including them could lead to obvious biases. To be even more conservative, we also drop all newspapers in other “large” markets – defined as markets with at least 10 newspapers – because the market forces acting on these newspapers might be similar to those acting on the five newspapers we used to identify scandals.

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<sup>39</sup>The exact string used for this search is (*indict\* or convict\* or guilty or bribe\* or corrupt\* or scandal or impeach\**) and (*congressm?n or senator\* or governor\* or mayor\* or representative\**), where \* and ? are wildcards.

We complemented the ProQuest searches with two other sources. The first is the section “Politicians in Trouble or Disgrace” on the website Political Graveyard.<sup>40</sup> We chose only scandals involving corruption while in office – most of these scandals overlapped with those we found by searching the five newspapers. Second, we included all cases of contested elections in the U.S. Senate in which the reasons given for the contest included accusations of bribery or fraud in the election process, and where the Senate investigated the claims. The information is from the *Senate Historical Office*, which has a section on the Senate’s website describing each contested election, including information about the politicians involved, a summary of the case, and the dates at which the contestation process began and ended.

Our list of scandals includes 121 observations. Table 2.1 shows that slightly over 60% of these involve Republican politicians, which is likely due to the fact that the Republicans held a majority of government offices during our period of study. The scandals are evenly distributed between local and state level scandals, and these add up to 93% of the total observations.

Table 2.1: Scandals by Political Affiliation and by Scope

Panel A: By Political Affiliation		
	Number	Percent
Democratic	45	37.2
Republican	76	62.8
Total	121	100
Panel B: By Geographical Scope		
	Number	Percent
National	8	6.6
State	59	48.8
Local	54	44.6
Total	121	100

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<sup>40</sup>See <http://politicalgraveyard.com>.

## Newspaper Articles

We measure newspaper coverage by the number of articles published by each newspaper that mention the scandal while the scandal was ongoing. For each scandal, we define the relevant time period as follows. The period begins on the first day of the month in which the scandal began – i.e., an official body opened an investigation, or the politician was arrested or indicted – and the period ends on the last day of the month during which an official resolution to the scandal occurred – i.e., the investigation was closed, the politician was convicted, acquitted, or died. The newspapers in our data set are from the newspaper archive *America’s Historical Newspapers*, which contains issues for 157 newspapers for the period 1870-1910.

To identify the newspaper articles that mention each scandal, we constructed a search string that included the name and office of the politician involved, plus key words and phrases drawn from the information gathered when we first identified the scandal from the sources. Then, we constructed a separate search string tailored to each case. Two examples are (*“senator tweed” or “boss tweed”*) and (*“tweed ring” or tammany or embezzle\* or arrest\* or trial or convict\**) for the final scandal involving William Tweed, and (*congressman or representative*) and (*“star route” or “star-route”*) and (*indict\* or charge\* or bribe\* or trial\* or guilty or acquit\**) for the scandal involving William Pitt Kellogg. Since there are 121 such strings and some of them fairly long, we do not list them all here.<sup>41</sup> To scale the number of articles, we collected the total number of articles published by the newspaper during the relevant period of the scandal.<sup>42</sup>

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<sup>41</sup>A list with the exact search string used for each scandal is available on request. After searching we checked 2% of the results for all the scandals by hand, to check for false positives; in some cases this led us to modify our search strings.

<sup>42</sup>We used PERL scripts to automate the date-collection process.

## Newspaper Media Markets

To describe the market environment facing each of the newspapers in our sample, we collected information about the newspaper’s partisanship, frequency of publication, and circulation, as well as the partisanship and circulation of all other newspapers in the same city or town at that time. We collect this from *Rowell’s American Newspaper Directory* and *N.W. Ayer & Son’s American Newspaper Annual and Directory*. These were annual publications that together covered the period 1869 to 1922, and contained information about each newspaper published in every city, including partisanship, frequency of circulation and size of circulation, language of publication, and other information. Since we are mainly interested in the competition between partisan newspapers, our data set only has information for the newspapers that supported one of the major political parties or declared themselves to be politically independent or neutral. The independent newspapers constitute a “control group” to which we compare the Democratic and Republican newspapers.

Table 2.2: Newspapers by Party and by Media Market

Panel A: By Party		
	Number	Percent
Democratic	59	34.7
Republican	82	48.2
Independent	29	17.1
Total	170	100
Panel B: By Media Market		
	Number	Percent
1	30	9.4
2	49	15.3
3	51	15.9
4	56	17.5
5	54	16.9
6 to 10	80	25
Total	320	100

We collected the media market information for all of the newspapers in our sample (from *America’s Historical Newspapers*). Table 2.2 has the number of newspapers according to

partisanship. About half of the newspapers from *America's Historical Newspapers* in our sample were Republican, almost 35% were Democratic, and a little under 20% were Independent.<sup>43</sup> Panel B in Table 2.2 classifies newspapers according to media market type. Since there were numerous changes in the number of newspapers in a city, and we count each change separately, the number of newspapers counted this way is about 320.

## Newspaper Variables

The scandals in our dataset overlapped between one to four calendar years and the information that we have available on newspapers and the media market corresponds to those calendar years. In some cases, newspapers changed partisan affiliations during the course of a scandal. In other cases, the media market structure facing a newspaper changed during the course of a scandal. Since we study each scandal as a unit and in order to define each newspaper's partisan affiliation and market environment for each scandal, we averaged over the calendar years during which the scandal took place.

More specifically, we define a newspaper as *Republican* during a scandal if Rowells/Ayers classified the newspaper as Republican for more than half of the time during the scandal period. Similarly, we define a newspaper as *Democratic* during a scandal if Rowells/Ayers classified it as Democratic for more than half of the time during the scandal period, and we define a newspaper as *Independent* if Rowells/Ayers classified it as Independent for more than half of the time.

As discussed above, one reasonable hypothesis is that a newspaper will be most biased in a monopoly situation, where it does not face any competition in its city, and that this bias will decrease as the number of newspapers in the city increases. We use the log of the total number of newspapers in the city to capture this effect. This is a convenient way to measure the effect of increased competition, since it is likely that the effect of an additional newspaper is stronger when this increases the number of newspapers in a market from 1 to 2,

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<sup>43</sup>If a newspaper changed partisanship it appears multiple times, once for each partisan affiliation.

or 2 to 3, than when it increases the number of newspapers from 9 to 10. In some cases the number of competitors in a given newspaper’s market changed over the course of a scandal. Therefore, for each scandal and newspaper we define *Log Newspapers* as the average number of newspapers circulating in the newspaper’s town over the course of the scandal.

The dependent variable is *Relative Hits<sub>ij</sub>*, defined as the number of articles published by newspaper  $j$  about scandal  $i$  ( $h_{ij}$ ), divided by the total number of articles published by this newspaper during the period of scandal  $i$  ( $H_{ij}$ ), minus the average number of this ratio for all the newspapers that published articles about scandal  $i$ :

$$Relative\ Hits_{ij} = \frac{h_{ij}}{H_{ij}} - \frac{\sum_{k=1}^{n_i} (h_{ik}/H_{ik})}{n_i} \quad (4)$$

where  $n_i$  is the number of newspapers in the sample during the period of scandal  $i$ . That is, we study how a newspaper’s coverage deviates from the average coverage of the scandal, as a result of the type of scandal and the partisanship of both the newspaper and the politicians involved in the scandals. Since the mean of  $h_{ij}/H_{ij}$  is only .000267, or 2.67 articles per 10,000, we rescale *Relative Hits* by multiplying by 10,000.

Bias in the coverage of scandals can be in two directions. A newspaper can choose to “over cover” scandals involving politicians of the opposition party (reminding readers as much as possible that the politicians in the opposition party are corrupt, dishonest, untrustworthy, and generally not deserving of their votes). A newspaper can also choose to “under cover” scandals involving politicians from its own party (possibly hoping that readers might not learn about the scandal, or at least trying to limit the damage to the party’s reputation by not reminding readers about the scandal). To capture the first of these, we define the variable *Opposition Party<sub>ij</sub>*; this variable is equal to 1 if newspaper  $j$  and the politician involved in scandal  $i$  belong to different parties, and it is 0 if they are attached to the same party or the newspaper is independent. To capture the second type of bias, we define the variable *Own Party<sub>ij</sub>*; this variable is equal to 1 if newspaper  $j$  and the politician in scandal

$i$  are both affiliated with the same political party, and it is 0 otherwise or if the newspaper is independent. Finally, putting the two types of bias together produces a measure of the overall bias of the newspaper, i.e., how much it “over covers” scandals related to the opposition party and “under covers” scandals related to its own party. To capture this, we define the variable  $Overall\ Bias_{ij} = Opposition\ Party_{ij} - Own\ Party_{ij}$ ; so,  $Overall\ Bias_{ij}$  is equal to -1 when both scandal and newspaper are affiliated with the same political party, it is equal to +1 when they belong to opposite parties, and it is 0 otherwise.

It is reasonable to expect that newspapers will give more coverage to scandals that occur within their state or in the nearby states, while scandals that pertain to politicians in offices at the federal level will receive different treatment. In order to account for this difference in treatment, we created three different variables: *In State* is a dummy variable that is equal to one if the politician involved in scandal  $i$  works in the state where newspaper  $j$  is published; *In Region* is a dummy variable that equals one if the politician involved in scandal  $i$  is from a state that shares boundaries with the state where newspaper  $j$  is located; and *National* is a dummy variable that is equal to one if the scandal involves a politician that occupies an office at the federal level.<sup>44</sup>

Newspapers also vary considerably in size, circulation, frequency of circulation, etc. To capture some of this variation we control for *Newspaper Frequency*, defined as 7 for daily newspapers, 3 for tri-weeklies, 2 for semi-weeklies and 1 for weeklies.

## Other Data

We also include a variety of demographic and socio-economic variables, measured at the county level. These help control for factors such as the income, urbanization, and literacy of each newspaper in our sample. More specifically, we extract the following variables from the U.S. census files at the Inter-University Consortium for Political and Social Research (ICPSR

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<sup>44</sup>We also constructed *In County*, a dummy variable that is equal to one if the politician involved in scandal  $i$  works in the county where newspaper  $j$  is published. This variable turns out to be zero for all but a tiny number of cases, and due to perfect multicollinearity is dropped it from the analysis.



Study 2896 by Haines 2006): total population, the number of white population, the number of male population aged 21 and older, the number of people living in towns with 2,500 or more residents, the number of people living in towns with 25,000 or more residents, the total dollar value of manufacturing output, the number of people employed in manufacturing, and the total annual wages in manufacturing. We linearly interpolate each number between census years.<sup>45</sup> We use these variables to construct the share of white population, the share of males aged 21 and older, the share of the population living in towns with 2,500 or more people, the share of population living in cities with 25,000 or more people, the total dollar value of manufacturing output per-capita, and the average wage in manufacturing.<sup>46</sup>

Finally, in some specifications we also control for the partisanship of each newspapers' market area, using the Democratic vote share for president in the county of each newspaper in the most recent election prior to the scandal. Define the variable *Voter Partisanship*, as follows. Let  $D_{ij}$  be the Democratic share of the vote in the county where newspaper  $j$  is published, in the presidential election immediately prior to scandal  $j$ . Then  $Voter\ Partisanship_{ij} = D_{ij}$  if scandal  $j$  involves a Republican politician, and  $Voter\ Partisanship_{ij} = 1 - D_{ij}$  if scandal  $j$  involves a Democratic politician. Thus, *Voter Partisanship* is defined so that if voters are "cognitive dissonance avoiders" and newspapers published articles cater to this taste, then the relationship between *Relative Hits* and *Voter Partisanship* will be positive.<sup>47</sup>

Appendix Table B.2 contains summary statistics of all variables used in our main analysis.

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<sup>45</sup>The number of males aged 21 and older, the total dollar value of manufacturing output, the number of people employed in manufacturing, and the total annual wages in manufacturing are missing for the year 1910. We use the average of the 1900 and 1920 values for the year 1910 before interpolating these measures.

<sup>46</sup>All dollar values are in 1910 dollars.

<sup>47</sup>Note that since newspaper markets are mainly towns or cities rather than whole counties, we would prefer to measure the demographic, socio-economic, and political variables at the town level rather than the county level. Unfortunately, these do not exist for our period of study, and constructing such measures would be an enormous if not impossible task.

## Results

We estimate models of the following form:

$$Relative\ Hits_{ij} = \beta_0 + \beta_1\ Opposition\ Party_{ij} + \beta_2\ Log\ Newspapers_{ij} + \gamma'X_{ij} + \epsilon_{ij} \quad (5)$$

and

$$Relative\ Hits_{ij} = \beta_0 + \beta_1\ Opposition\ Party_{ij} + \beta_2\ Log\ Newspapers_{ij} + \beta_3\ Opposition\ Party_{ij} \times Log\ Newspapers_{ij} + \gamma'X_{ij} + \epsilon_{ij} \quad (6)$$

where *Opposition Party* and *Log Newspapers* are as described above, and  $X_{ij}$  is a vector of control variables. The models are similar for the other bias measures, with *Own Party* or *Overall Bias* substituted for *Opposition Party*.<sup>48</sup>

The first model gives a basic sense of the relationships between newspaper coverage of scandals and key variables presumed to affect this coverage. It also provides a baseline estimate of the average direction and magnitude of the bias in scandal coverage after controlling for some of these key variables, given by  $\beta_1$ . Given the discussion above, we expect that  $\beta_1 > 0$  for *Opposition Party* and *Overall Bias*, and we expect that  $\beta_1 < 0$  for *Own Party*.

The second model contains the main parameter of interest,  $\beta_3$ , which provides an estimate of how newspaper competition affects the bias in scandal coverage. If  $\beta_1 > 0$  and  $\beta_3 < 0$ , or  $\beta_1 < 0$  and  $\beta_3 > 0$ , then an increase in the number of newspapers is associated with a decline in the average amount of bias.

The vector of controls always includes scandal-specific fixed effects, *In State*, *In Region*,

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<sup>48</sup>We do not run models with newspaper-specific fixed-effects, because we do not yet have enough within-newspaper variation in the key interaction variables. Identifying the coefficient on *Opposition Party*  $\times$  *Log Newspapers* requires newspapers that had an opportunity to cover different types of scandals (some involving the opposition party and some not) under noticeably different competitive situations. In our sample there are only a few such newspapers – e.g., there are only 15 newspapers that had the opportunity to cover both opposition and other scandals while in a monopoly or duopoly situation, *and* had the opportunity to cover both opposition and other scandals while facing two or more competitors.

and *Newspaper Frequency*. In some specifications the vector of controls also includes the county-level demographic and socioeconomic described in the previous section, as well as a time trend. In other specifications, the vector of controls also includes the control for voter partisanship.<sup>49</sup>

## Baseline Estimates

Table 2.3 presents our “baseline” results. Columns 1-4 of the table show the estimates for the *Opposition Party* bias variable, columns 5-8 show the estimates for the *OwnParty* bias variable, and columns 9-12 show the estimates for the *Overall Bias* variable. We include scandal specific fixed effects in all specifications. In the odd numbered columns, the additional controls are those shown in the table. In the even numbered columns, all of the additional demographic and socio-economic controls are included, as well as a time trend.<sup>50</sup> Standard errors, clustered by scandal, are in parentheses.

Note first that by themselves the estimated coefficients on the bias variables are always statistically significant, substantively meaningful, and in the expected direction. Partisan newspapers publish more articles about scandals involving politicians from the opposition party, and they print fewer articles about scandals involving politicians from their own party, relative to independent newspapers. Consider, for example the coefficient on *Opposition Party* in column 2, which is 0.863. Recall that *Relative Hits* is measured in hits per 10,000 articles, and the average number of articles per scandal in our sample is 2.74 per 10,000. The point estimate therefore implies that, on average, partisan newspapers publish about 31% ( $100 \times 0.863 / 2.74$ ) more stories about a scandal when it involves an opposition party politician. Another way to view the size of the coefficient is to note that *Relative Hits* standard deviation of 5.35, so the difference between a newspaper-scandal pair with *Opposition Party* = 1 and a pair with *Opposition Party* = 0 is about 16% of a standard deviation in *Relative Hits*.

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<sup>49</sup>The variable *National* is never significant in any of the basic specifications, so we drop this variable.

<sup>50</sup>The estimates for these variables are not shown, but are available on request.

Table 2.3: Newspaper Biases: Dependent Variable = Relative Hits

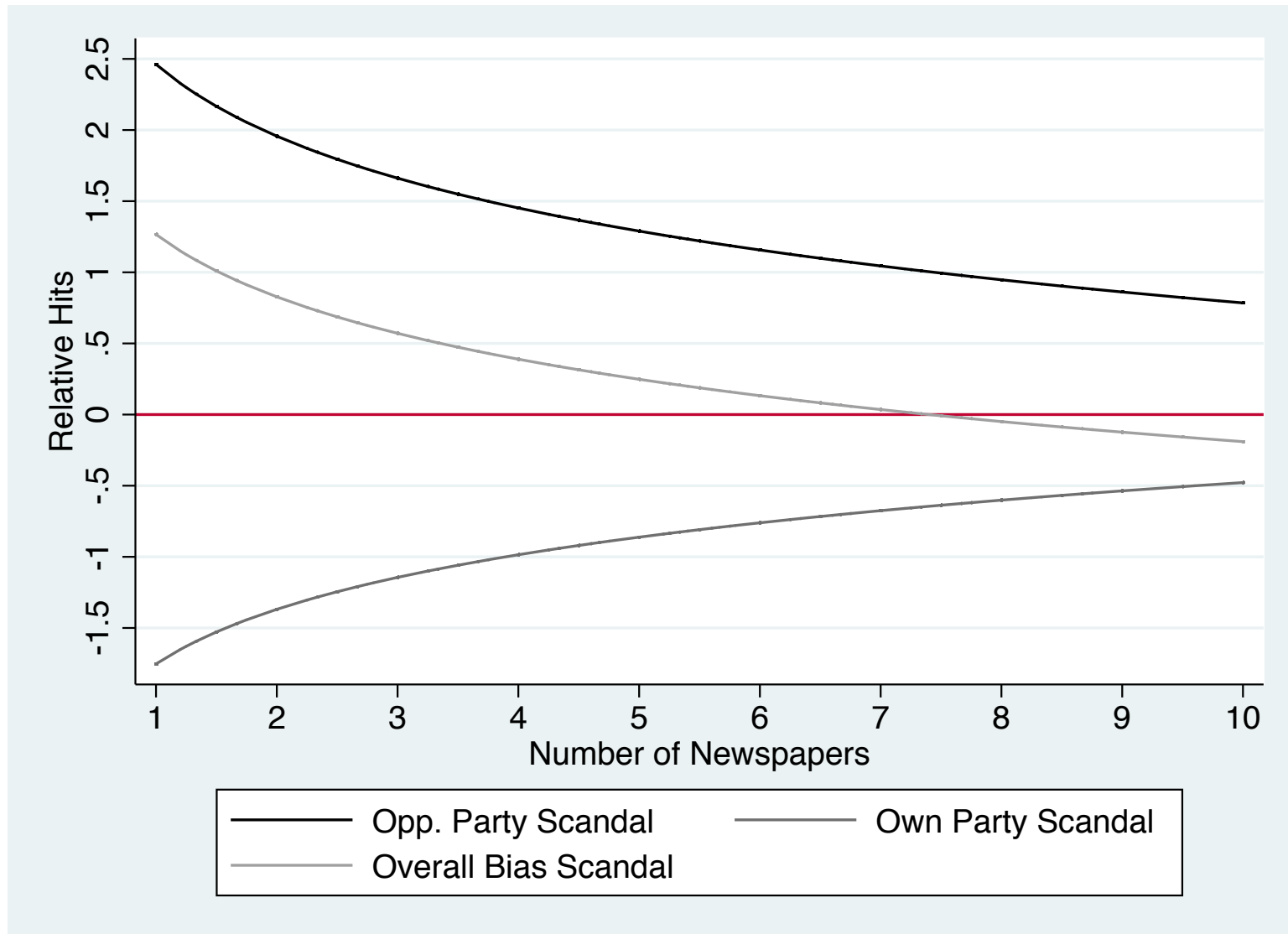
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Newspaper Frequency	0.372 (0.202)	0.243 (0.215)	0.287 (0.223)	0.215 (0.225)	0.405 (0.202)	0.298 (0.210)	0.391 (0.217)	0.301 (0.217)	0.387 (0.201)	0.273 (0.212)	0.345 (0.219)	0.260 (0.221)
In-State Scandal	4.747 (1.429)	4.773 (1.434)	4.760 (1.435)	4.800 (1.437)	4.767 (1.423)	4.811 (1.426)	4.743 (1.439)	4.806 (1.441)	4.747 (1.426)	4.785 (1.429)	4.744 (1.438)	4.799 (1.439)
In-Region Scandal	1.989 (0.670)	1.914 (0.667)	1.973 (0.674)	1.910 (0.667)	1.992 (0.669)	1.919 (0.668)	1.996 (0.674)	1.911 (0.670)	1.999 (0.671)	1.924 (0.668)	1.994 (0.676)	1.917 (0.670)
Log Newspapers			0.472 (0.208)	0.366 (0.209)			-0.310 (0.196)	-0.479 (0.208)			-0.005 (0.153)	-0.083 (0.159)
Opposition Party	0.859 (0.273)	0.863 (0.272)	2.462 (0.742)	2.396 (0.759)								
Opposition Party $\times$ Log Newspapers			-1.200 (0.400)	-1.133 (0.410)								
Own Party					-0.633 (0.254)	-0.689 (0.260)	-1.753 (0.635)	-2.085 (0.676)				
Own Party $\times$ Log Newspapers							0.864 (0.342)	1.061 (0.369)				
Overall Bias									0.440 (0.151)	0.450 (0.151)	1.266 (0.399)	1.282 (0.399)
Overall Bias $\times$ Log Newspapers											-0.627 (0.214)	-0.630 (0.215)
Observations	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

Figure 2.1: Newspaper Bias vs. Number of Competing Newspapers



More interestingly, columns 3, 4, 7, 8, 11 and 12 show that newspapers are significantly *more* biased when they face less competition from other newspapers. This holds for all three bias measures, and the estimates are statistically significant at the .05 level. In all cases, the point estimates indicated clear differences in bias between newspapers that face little or no competition and those that compete with many other newspapers. Consider again the *Opposition Party* bias measure, and focus now on column 3. The coefficients imply that if a newspaper has a monopoly ( $\text{Log Newspapers} = 0$ ), then it will publish 2.462 more articles per 10,000 when a scandal involves a politician of the opposite party than when the scandal does not. Since the average number of articles per scandal in our sample is 2.74 per 10,000, this represents an amount of coverage that is 90% above the average amount ( $100 \times 2.462 / 2.74$ ). By contrast, if a newspaper faces four competitors (so  $\text{Log Newspapers} = \text{Log}(5) = 1.609$ ), then it will only publish 1.291 more articles per 10,000 when a scandal involves a politician of the opposite party than when the scandal does not ( $2.462 - 1.2 \times 1.609 + .472 \times 1.609$ ). Thus, in relative terms, the degree of bias is only 52% as large when a newspaper faces four competitors than when it faces none.

Figure 2.1 shows the predicted relationships between the three different types of bias and the number of newspapers, based on the point estimates from columns 3, 7 and 11 (and setting the relevant bias variable at 1). For example, moving from 1 to 4 to 9 newspapers, the *Overall Bias* falls from 1.266 to 0.39 to -.123.

## Adding Voter Partisanship

Table 2.4 shows the results when we estimate the same models reported in Table 2.3, but also include a control for the underlying partisanship of voters in each newspaper's county, *Voter Partisanship*.<sup>51</sup>

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<sup>51</sup>The number of observations in Table 2.4 is smaller than the number of observations in Table 2.3, because when we add *Voter Partisanship* the newspapers published in U.S. territories and the District of Columbia are dropped.

Table 2.4: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Newspaper Frequency	0.201 (0.216)	0.171 (0.233)	0.207 (0.233)	0.155 (0.236)	0.129 (0.219)	0.184 (0.231)	0.178 (0.232)	0.196 (0.231)	0.160 (0.217)	0.179 (0.232)	0.190 (0.232)	0.176 (0.233)
In-State Scandal	4.789 (1.438)	4.853 (1.444)	4.830 (1.442)	4.888 (1.446)	4.801 (1.429)	4.895 (1.429)	4.859 (1.440)	4.923 (1.442)	4.787 (1.433)	4.869 (1.436)	4.842 (1.441)	4.903 (1.443)
In-Region Scandal	1.865 (0.667)	1.793 (0.656)	1.862 (0.668)	1.785 (0.656)	1.861 (0.668)	1.802 (0.657)	1.855 (0.669)	1.784 (0.656)	1.867 (0.668)	1.803 (0.657)	1.861 (0.669)	1.789 (0.657)
Log Newspapers			0.403 (0.242)	0.339 (0.261)			-0.882 (0.276)	-0.849 (0.276)			-0.234 (0.167)	-0.243 (0.191)
Opposition Party	0.997 (0.328)	1.030 (0.327)	2.863 (0.879)	2.893 (0.881)								
Opposition Party $\times$ Log Newspapers			-1.319 (0.450)	-1.311 (0.454)								
Own Party					-0.896 (0.315)	-0.889 (0.316)	-2.897 (0.883)	-2.865 (0.875)				
Own Party $\times$ Log Newspapers							1.403 (0.450)	1.401 (0.450)				
Overall Bias									0.559 (0.186)	0.560 (0.183)	1.558 (0.471)	1.549 (0.468)
Overall Bias $\times$ Log Newspapers											-0.720 (0.237)	-0.715 (0.237)
Voter Partisanship	-1.094 (0.866)	-1.024 (0.843)	-1.406 (0.875)	-1.344 (0.857)	-1.019 (0.869)	-0.884 (0.845)	-1.402 (0.902)	-1.244 (0.879)	-1.262 (0.902)	-1.145 (0.876)	-1.571 (0.923)	-1.447 (0.900)
Observations	3316	3316	3316	3316	3316	3316	3316	3316	3316	3316	3316	3316

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

As Table 2.4 shows, when we add *Voter Partisanship*, the point estimates for the bias variables tend to increase in magnitude relative to those in Table 2.3, and remain statistically significant at the .05 level. This is true for the simple bias variables – *Opposition Party*, *Own Party*, and *Overall Bias* – and it is also true for the coefficients of interest – *Opposition Party*  $\times$  *Log Newspapers*, *Own Party*  $\times$  *Log Newspapers*, and *Overall Bias*  $\times$  *Log Newspapers*.

Perhaps surprisingly, in all columns the estimated coefficient on *Voter Partisanship* is negative rather than positive; however, it is never statistically significant.<sup>52</sup>

In any case, the bottom line is that including *Voter Partisanship* does not weaken the estimated relationship between competition and newspaper bias.

## Adding Time Trends in Bias

Table 2.5 shows the results when we estimate the same models reported in Table 2.3, but also include linear time trends in the bias terms. That is, in the regressions focusing on bias against the opposition party, we include the variable *Opposition Party*  $\times$  *Year*, in the regressions focusing on bias in favor of one’s own party we include *Own Party*  $\times$  *Year*, and in the regressions focusing on overall bias we include *Overall Bias*  $\times$  *Year*. This allows the specifications to incorporate other forces that might have been reducing (or increasing) bias nationwide, such as changing professional norms in journalism, and the general increase in advertising as a source of newspaper revenue.

As Table 2.5 shows, when we add the new variables the estimated coefficients on the main variables of interest – are similar to those in Table 2.3, and always statistically significant at the .05 levels.

Interestingly, the estimates on the time trend variables all suggest that the level of newspaper bias has declined over time, and all are statistically significant at the .05 or .10 level. The trends are relatively large, also. For example, the coefficients in column 5 suggest that

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<sup>52</sup>One possible reason for the insignificant estimates is measurement error, since the *Voter Partisanship* variable is measured at the county level rather than the town level.



Table 2.5: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)	(5)	(6)
Log Newspapers	0.376 (0.196)	0.296 (0.202)	-0.248 (0.183)	-0.416 (0.196)	-0.013 (0.154)	-0.076 (0.158)
Opposition Party	2.266 (0.686)	2.191 (0.699)				
Opposition Party $\times$ Log Newspapers	-1.002 (0.357)	-0.931 (0.367)				
Own Party			-1.578 (0.575)	-1.913 (0.620)		
Own Party $\times$ Log Newspapers			0.707 (0.308)	0.905 (0.338)		
Overall Bias					1.158 (0.365)	1.173 (0.366)
Overall Bias $\times$ Log Newspapers					-0.531 (0.192)	-0.532 (0.194)
Year	-0.007 (0.006)	-0.005 (0.006)	-0.033 (0.011)	-0.034 (0.010)	-0.025 (0.006)	-0.024 (0.005)
Opposition Party $\times$ Year	-0.041 (0.018)	-0.041 (0.018)				
Own Party $\times$ Year			0.030 (0.017)	0.030 (0.017)		
Overall Bias $\times$ Year					-0.020 (0.010)	-0.020 (0.010)
Observations	3696	3696	3696	3696	3696	3696

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

between 1870 and 1910 the average *Overall Bias* fell by 97% (from 1.856 to 0.056). This is consistent with previous findings, such as Gentzkow et al. (2006) and Petrova (2011).

## Bias in Coverage During Election Periods

We also conducted analyses focusing on newspaper coverage during election periods. More specifically, for each scandal we identified the closest election that was held during or after the scandal, and counted the number of articles about the scandal printed in each newspaper during the two months leading up to election day. We then estimated the same models as in Table 2.3 with the election-period coverage dependent variable.

Qualitatively, the pattern of estimates when we focus on election-period coverage is quite similar to that in Table 2.3. The magnitudes are smaller than those in Table 2.3, because the standard deviation of the dependent variable is much smaller.<sup>53</sup> For example, the estimated coefficient on *Opposition Party* in Equation 2 is 0.139, and the estimated standard error is 0.070. The estimated coefficient on *Opposition Party* in Equation 3 is 0.450 (standard error = 0.214), the estimated coefficient on *Log Newspapers* is 0.073 (standard error = 0.042), and the estimated coefficient on the interaction term *Opposition Party* × *Log Newspapers* is -0.232 (standard error = 0.109). Thus, as in the baseline specifications, the estimates indicate that newspapers exhibit bias in their election-period scandal coverage, but the size of the bias falls as competition increases.

## Conclusion

Much of the U.S. press in the 19th and early 20th centuries was highly partisan. The analysis above indicates that this partisan bias was reflected in the amount of coverage devoted to scandals depending on the partisan affiliations of the politicians involved. Partisan newspapers tended to cover scandals involving the opposition party's politicians more intensely,

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<sup>53</sup>In the interest of space we do not report the estimates in detail in yet another table. They are available upon request.

and they also tended to cover scandals involving their own party's politicians more lightly.

Perhaps more importantly, it appears that competition – measured simply as the number of competing newspapers – reduced the degree to which partisan newspapers skewed their coverage of scandals. The point estimates suggest that compared to a newspaper in a monopoly position, a newspaper facing two competitors would on average exhibit less than 50% as much bias in coverage intensity (using the overall bias measure), and a newspaper facing six competitors would exhibit no noticeable bias.

Our sample contains 157 newspapers. This is large enough to give us enough observations to have confidence in our regression estimates; also, we have no reason to believe that the sample is unrepresentative in ways that might bias our estimates. Nonetheless, the sample only represents a small fraction – about 2% – of the newspapers that circulated in the U.S. during the period of study. Enlarging the sample is crucial, especially in order to estimate models with newspaper-specific fixed effects.

It would be especially interesting to extend the time period covered, through the 1910s and into the 1920s. This would allow us to study whether newspapers responded to the structural changes in political institutions that began at the start of the 20th century – such as the introduction of primary elections, the direct election of U.S. Senators, and the shift toward non-partisan elections for local offices. One prediction is that under the direct primary, even highly partisan voters should be interested in learning about the malfeasance of state and local politicians in their own party, since they can vote against these politicians in the primary election. Did newspapers respond to this demand?

## Chapter 3. Newspaper Coverage and the Effect of Scandals in Congressional Elections

Do voters punish politicians implicated in scandals? Previous studies show that politicians in scandals suffer only moderately in elections (e.g., Peters and Welch 1980; Welch and Hibbing 1997; Brown 2006; Basinger 2013). Given that voters typically have only a limited amount of knowledge about politics (e.g., Carpini and Keeter 1997), politicians in scandals may be able to get by with their wrongdoings due to voters' ignorance. If voters' ability to punish politicians in scandals depends on voters' information, scandals would be more costly to politicians when the media cover them.

In this paper, I study whether newspaper coverage of scandals can help voters punish the party of politicians involved in a scandal in the context of the U.S. House of Representatives from 1982 to 2004. To investigate the effect of press coverage, I use the congruence between newspaper markets and congressional districts following Snyder and Strömberg (2010). I first present evidence that newspapers write more stories about representatives involved in a scandal in more congruent districts. Subsequently I show that parties with candidates or previous incumbents involved in a scandal suffer moderately in elections, which is consistent with previous studies. More importantly, I find that the parties involved in scandals do worse in districts/counties with higher congruence: they get fewer votes and are less likely to win.

### Previous Literature

Previous studies show that scandals hurt U.S. House incumbents, especially in general elections. Scholars have been using various sources to identify scandals and find that incumbents involved in a scandal lose about 6 to 12 percent of votes in general elections (e.g., Peters

and Welch 1980; Abramowitz 1991; Welch and Hibbing 1997; Herrick 2000; Brown 2006).<sup>54</sup> A series of studies also investigated the effect of the House Bank scandal, which broke in 1992 when it was revealed that representatives had been overdrawing their House checking accounts without any penalty. While some scholars find that the scandal contributed significantly to the turnover in the House (e.g., Banducci and Karp 1994; Jacobson and Dimock 1994), others conclude that its effect on retirements of implicated House members was not significant (e.g., Alford et al. 1994; Groseclose and Krehbiel 1994).

Three recent studies compiled the list of scandals over the long period of time and analyzed how scandals hurt politicians. Hirano and Snyder (2012) analyze House incumbents involved in a scandal between 1978 and 2008. They find that incumbents in scandals receive 16 percent less votes in primary elections, 11 percent more likely to lose primary, receive 11 percent less votes in general elections, and 20 percent more likely to lose general elections. Basinger (2013) analyzes scandals involving members of House of Representatives in the post-Watergate era, from 1972 to 2012. He finds that incumbents involved in a scandal receive about 4 to 5 percent less votes in general elections. Finally, Praino, Stockemer and Moscardelli (2013) find that House incumbents accused of unethical behavior by the House Ethics Committee between 1972 and 2006 received 12 percent less votes in general elections. They also show that it takes years for incumbents in scandals recover their previous levels of electoral support.

As these studies demonstrate, scandal is clearly a bad news for politicians. However, it is far from a political death sentence. Although scandals hurt incumbents in elections, the majority of them still survive their scandals (e.g., Peters and Welch 1980; Welch and Hibbing 1997; Brown 2006; Basinger 2013). How do politicians in scandals continue to get support from voters?

One explanation is that voters may support politicians in scandals because they weigh corruption charges with other considerations such as partisanship or policy stance of can-

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<sup>54</sup>For survey of the literature, see Basinger (2013).

didates. Rundquist, Strom and Peters (1977) present evidence from an experiment which suggests that voters implicitly “trade” a possibility of corruption for their preferred policy. Similarly, Eggers (2014) claims that voters with strong partisan attachments are less responsive to corruption charges of politicians. He analyzes the 2009 UK expenses scandal, which involves members of parliaments who misused public money, and shows that incumbents implicated in the expenses scandal were punished less severely in constituencies where the partisan stakes were higher.

Another possibility is that voters are simply ignorant about scandals. Consistent with this explanation, Klašnja (2014) finds that voters with low levels of political knowledge tend to vote for incumbent House members charged with corruption.

In this paper, I focus on the role of the media. If politicians implicated in scandals get reelected mainly because of voters’ ignorance, media coverage of scandals will make it more difficult for politicians in scandals to secure their office. Previous studies show that the media can affect public policy and improve political accountability by providing political information to voters (e.g., Besley and Burgess 2002; Strömberg 2004*b*; Snyder and Strömberg 2010; Dyck, Moss and Zingales 2013; Fergusson 2014; Lim, Snyder and Strömberg 2015). Moreover, studies on other countries suggest politicians suspected of wrongdoings are punished by voters when the media cover them (e.g., Chang, Golden and Hill 2010 on Italy, Costas-Pérez, Solé-Ollé and Sorribas-Navarro 2012 on Spain, and Larreguy, Marshall and Snyder 2015 on Mexico).

While the literature on the effect of scandals in the U.S. Congress empirically examine factors that could mediate the effects of scandals, such as the type of scandals (Doherty, Dowling and Miller 2011), the passage of time (Doherty, Dowling and Miller 2014), challenger quality (Basinger 2013), and voters’ political knowledge (Klašnja 2014), they paid little attention to the role of the media. This paper contributes to this literature by highlighting the importance of newspaper coverage in punishing members of U.S. Congress for their misdemeanors.

# Measurement and Data

## Congruence

To study the effect of newspaper coverage of scandals on voters, I use the degree of congruence between newspaper markets and congressional districts, suggested by Snyder and Strömberg (2010). Following Snyder and Strömberg (2010), Lim and Snyder (2015), and Lim, Snyder and Strömberg (2015), I assume a simple linear relationship between the number of stories that newspaper  $m$  writes about congressional district  $d$ ,  $q_{md}$ , and the share of newspaper  $m$ 's readers living in district  $d$ ,  $ReaderShare_{md}$ ,

$$q_{md} = \alpha_0 + \alpha_1 \times ReaderShare_{md}, \quad (7)$$

where  $\alpha_1 > 0$ . Since more than one newspapers circulate in a typical congressional district, I consider the average  $ReaderShare_{md}$  weighted by the market shares of newspapers in  $d$ ,

$$Congruence_d = \sum_{m=1}^M MarketShare_{md} ReaderShare_{md}, \quad (8)$$

where  $M$  is the number of newspapers that circulate in  $d$ .

The sales-weighted average number of articles,  $q_d$ , about congressional district  $d$  is

$$\begin{aligned} q_d &= \sum_{m=1}^M MarketShare_{md} q_{md} \\ &= \alpha_0 + \alpha_1 Congruence_d. \end{aligned} \quad (9)$$

Therefore, I can use  $Congruence_d$  as a measure of newspaper coverage of congressional districts.

Similarly, I use the county level congruence measure as a proxy for the sales-weighted

average number of articles about district  $d$  in county  $c$  with  $M$  newspapers,

$$\begin{aligned} q_{cd} &= \sum_{m=1}^M MarketShare_{mc} q_{md} \\ &= \alpha_0 + \alpha_1 Congruence_{cd}, \end{aligned} \tag{10}$$

where,

$$Congruence_{cd} = \sum_{m=1}^M MarketShare_{mc} ReaderShare_{md}. \tag{11}$$

Newspaper circulation data to measure *Congruence* is from Snyder and Strömberg (2010). They use newspaper circulation data for the years 1982 and 1991–2004 from the Audit Bureau of Circulation (ABC), which collects data on each newspaper’s circulation in each county for nearly all newspapers in the US. They complemented this data with county-circulation data, provided by Standard Rate and Date Service, for non-ABC newspapers for 1991 and 2004, and interpolated values between these two years.

## Scandal

The list of scandals is from Hirano and Snyder (2012) and Basinger et al. (2014). Hirano and Snyder (2012) collected scandals from the *Historical Summary of Conduct Cases in the House of Representatives* (2004) published after each Congress by the House Committee on Standards of Official Conduct, the *Report to Congress on the Activities and Operations of the Public Integrity Section* published annually by the US Department of Justice, and *Congressional Quarterly Weekly Reports*. Basinger et al. (2014) collected scandals using *Congressional Quarterly Almanac* (annually from 1972 to the present), newspaper archives, and previous scholarly works (see Basinger et al. 2014; p.28).

From these two lists, I identified 214 scandals for the years 1982–2004. Among these scandals, 160 are included in the analyses (158 in the district sample, and 85 in the county sample. The list of scandals is reported in Appendix Table C.1.



# Newspaper Coverage of Scandals

In this section, I show that newspaper coverage of a representative involved in a scandal is increasing in the share of readers who live in the congressional district.

Newspaper coverage data is from Snyder and Strömberg (2010). The data contains the coverage of representatives from 1991 to 2002 in 161 newspapers (142 newspapers from NewsLibrary.com, 8 newspapers from Lexis/Nexis, and 11 newspapers from their individual website). To construct the measure of newspaper coverage of representatives,  $q_{mdt}$ , they count the number of articles in newspaper  $m$  during Congress  $t$  that contain the name of the representative from district  $d$  and the word “Congress.” The resulting sample consists of 4,206 newspaper-district-years.

Table 3.1: Summary Statistics (Newspaper Coverage)

Newspaper Level					
	Mean	Std Dev	Min	Max	N
Articles about representative	101.233	97.011	0	1454	4206
ReaderShare	0.165	0.221	0	1	4206
Scandal	0.033	0.178	0	1	4206
District Level					
	Mean	Std Dev	Min	Max	N
Articles about representative (circulation weighted average)	126.436	103.675	0	1454	2308
Congruence	0.219	0.227	0	1	2308
Scandal	0.038	0.190	0	1	2308
County Level					
	Mean	Std Dev	Min	Max	N
Articles about representative (circulation weighted average)	85.767	94.916	0	1062	3421
Congruence	0.151	0.229	0	1	3421
Scandal	0.032	0.176	0	1	3421

To examine the relationship between *Congruence* and newspaper coverage, I also use the circulation-weighted average number of articles for the congressional districts and congres-

sional district by county,  $q_d$  in equation (9) and  $q_{cd}$  in equation (10) respectively. Table 3.1 presents summary statistics.

In the sample, 138 newspapers have at least one representatives involved in a scandal (about 3.3 percent of the sample). I first investigate how newspaper coverage of scandals is related to *ReaderShare* (or *Congruence*) by restricting the sample to newspapers with representatives involved in scandals. Table 3.2 presents the results from regression analysis of the number of articles on representatives involved in scandals on *ReaderShare* (or *Congruence*). All the regressions in the table contain a set of control variables that may affect the amount of newspaper coverage of representatives: dummy variables for party leaders (the Speaker of the House, majority leader, majority whip, and minority whip), freshmen, majority party status, out-of-state districts, whether the representative sought for higher office (governor or senator) or received a higher appointment, the fraction of people living in urban areas, the median income, and year fixed effects.

Table 3.2: Newspaper Coverage of Scandals, 1991–2000

Dep Var = Num of Articles about Representatives Involved in Scandal			
	(1)	(2)	(3)
ReaderShare	409.933 (108.533)		
Congruence		398.089 (124.738)	601.422 (150.253)
Observations	138	87	109
$R^2$	0.509	0.535	0.572

The units of observation in column (1) is a newspaper by congress; in column (2) it is a district by congress; and in column (3) it is district-county by congress. Standard errors, in parentheses, are clustered by newspaper in column (1), by district in column (2), and by district-county in column (3). Year fixed effects and control variables are included in all regressions.

As column (1) shows, there is a strong and positive relationship between *ReaderShare* and

newspaper coverage of representatives involved in a scandal. An increase in *ReaderShare* from 0 to 1 leads to about 410 more newspaper articles on the representative. The results are similar when I use the circulation-weighted average number of articles. An increase in *Congruence* from 0 to 1 is associated with 398 more articles in column (2) and 601 more articles in column (3). According to the estimates, a one standard deviation increase in *ReaderShare* (or *Congruence*) leads to 91, 90, 138 more articles on the representative.

Table 3.3: Newspaper Coverage of Representatives, 1991–2000

	Dep Var = Num of Articles about Representatives					
	(1)	(2)	(3)	(4)	(5)	(6)
Scandal	46.786 (16.888)	52.981 (23.403)	27.089 (14.883)	11.677 (18.049)	13.176 (27.283)	-19.020 (14.486)
ReaderShare	164.758 (16.929)			160.235 (16.585)		
ReaderShare $\times$ Scandal				256.566 (118.903)		
Congruence		172.402 (20.637)	171.114 (11.559)		167.830 (20.424)	166.068 (11.000)
Congruence $\times$ Scandal					229.997 (137.200)	409.209 (149.159)
Observations	4206	2308	3421	4206	2308	3421
$R^2$	0.270	0.255	0.282	0.276	0.260	0.294

The units of observation in columns (1) and (4) is a newspaper by congress; in columns (2) and (5) it is a district by congress; and in columns (3) and (6) it is district-county by congress. Standard errors, in parentheses, are clustered by newspaper in columns (1) and (4), by district in columns (2) and (5), and by district-county in column (3) and (6). Year fixed effects and control variables are included in all regressions.

Table 3.3 shows the results from regression analyses using the full sample. As shown in columns (1)–(3), representatives who are involved in scandals receive more attention from the newspapers. More interestingly, the relationship between *Congruence* (or *ReaderShare*) and the number of articles is greater when the representative is involved in a scandal: the coefficients of *ReaderShare*  $\times$  *Scandal* and *Congruence*  $\times$  *Scandal* are positive and statis-

tically significant (except in column (5) where it is only marginally significant). According to the estimate in column (4), if a representative is not involved in a scandal, an increase in *ReaderShare* from 0 to 1 is associated with 160 more articles on the representative. If there is a representative involved in a scandal, however, an increase in *ReaderShare* from 0 to 1 leads to 417 more articles on the representative.

This result is consistent with Puglisi and Snyder (2008). They analyze newspaper coverage of superintendents and find that a decline in test scores<sup>55</sup> receives more attention especially in states with elected superintendents and during the general elections campaign. According to their reasoning, bad news get more attention because newsworthy figures such as incumbents' opponents or interest groups dissatisfied with the incumbents reproduce the news during the campaign. Similarly, when there is a scandal, news are reproduced by opponents or interest groups that disapprove the representative involved in a scandal, and thus the difference in the number of articles about the representative between high/low-congruence districts is magnified.

In summary, the results in this section suggest that newspapers write more stories about representatives in districts with greater share of their readers especially when representatives are involved in scandals.

## Newspaper Coverage and the Effect of Scandals

In this section, I investigate how the effect of scandals depends on newspaper coverage. I first present the results from district level analyses.

In the district sample, there are 158 politicians implicated in a scandal.<sup>56</sup> Among them, 107 won the election (3 ran unopposed), 18 resigned or retired, 4 lost nominations, and 29 ran in the election and lost. The parties who had a candidate or an incumbent involved in a

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<sup>55</sup>They consider three main nationwide standardized tests: the National Association of Educational Progress tests, and the SAT and ACT scores.

<sup>56</sup>The elections immediately following redistricting are excluded except at-large districts – 1982, 1992, 2002, and Texas in 2004.

scandal suffered only moderately: they lost about 19.6 percent of the time (31 out of 158). However, the party with a candidate involved in a scandal does worse in districts where newspapers write more stories about the candidate.

Table 3.4 shows the election results of the parties in scandal. The rows are the percentiles of *Congruence* and the columns are the election results of the party involved in a scandal. In the districts with low congruence ( $< 25$ th percentile), the parties involved in scandals won 87.8 percent of the time. In contrast, in the districts with high congruence ( $> 75$ th percentile), the parties involved in scandals won only 68.3 percent of the time.

Table 3.4: Congruence and Winning Percent of Party in Scandal

Congruence	Lost	Won	Total
$< 25$ th Percentile	5 (12.2)	36 (87.8)	41 (100)
25th – 50th Percentile	4 (9.1)	40 (90.9)	44 (100)
50th – 75th Percentile	9 (28.1)	23 (71.9)	32 (100)
$> 75$ Percentile	13 (31.7)	28 (68.3)	41 (100)

Row percentages are in parentheses. Percentiles are calculated using the whole district sample.

The party involved in a scandal also received fewer votes in high congruence districts. The average two-party vote share of the party involved in a scandal is about 63.3 percent in low congruence districts ( $< 25$ th percentile) and 55.4 percent in high congruence districts ( $> 75$ th percentile). The correlation between the two-party vote share and congruence is  $-0.3$ .

To make this point clear, I estimate the following model:

$$y_{dt} = \alpha_d + \theta_t + \beta_1 Scandal_{dt} + \beta_2 Congruence_{dt} + \beta_3 Congruence_{dt} \times Scandal_{dt} + \delta'X_{dt} + \epsilon_{dt}, \quad (12)$$

where  $y_{dt}$  is either the Democratic percentage of the two-party vote or an indicator variable for a Democrat winning in district  $d$  in election year  $t$ ,  $Scandal_{dt}$  is 1 ( $-1$ ) if a Democratic (Republican) incumbent or candidate is involved in a scandal between the election year  $t - 1$  and  $t$  and 0 otherwise,  $\alpha_d$  is a district fixed effect, and  $\theta_t$  is a year fixed effect.  $X_{dt}$  is a vector of district level control variables: the percent urban, log population density, the log median income, the percentage of, respectively, people aged 65 or older, military population, people employed in farming, foreign born, and blue-collar workers (see Table 3.5 for summary statistics).

Table 3.5: Summary Statistics

District Data					
	Mean	Std Dev	Min	Max	N
Democratic vote pct	51.890	18.251	7.865	97.077	3187
Democrat win (dummy)	0.530	0.499	0.000	1.000	3745
Incumbent	0.079	0.946	-1.000	1.000	3745
Scandal	0.004	0.205	-1.000	1.000	3745
Congruence	0.451	0.238	0.002	0.963	3745
County Data					
	Mean	Std Dev	Min	Max	N
Democratic vote pct (House)	47.640	18.912	0.000	100.000	16171
Democratic vote pct (Pres)	41.073	12.197	0.000	98.407	16171
Incumbent	-0.109	0.945	-1.000	1.000	16171
Scandal	0.002	0.204	-1.000	1.000	16171
Congruence	0.502	0.301	0.000	1.000	16171

Table 3.6: Newspaper Market and the Effect of Scandal: District

	Dep Var = Democratic Vote Pct				Dep Var = Democratic Win Prob			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Incumbent	12.369 (0.443)	11.015 (0.409)	12.342 (0.444)	11.051 (0.410)	0.371 (0.010)	0.350 (0.010)	0.371 (0.010)	0.351 (0.010)
Scandal	-2.396 (0.913)	-2.569 (0.792)	1.799 (2.112)	1.155 (1.661)	-0.022 (0.031)	-0.022 (0.031)	0.102 (0.060)	0.104 (0.058)
Congruence			-5.219 (3.360)	2.499 (2.734)			-0.126 (0.049)	-0.004 (0.052)
Congruence $\times$ Scandal			-9.358 (3.617)	-8.338 (2.958)			-0.280 (0.121)	-0.283 (0.117)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	3187	3187	3187	3187	3745	3745	3745	3745
$R^2$	0.854	0.878	0.855	0.879	0.841	0.848	0.843	0.849

Standard errors in parentheses, clustered by district. Year and district fixed effects included in all regressions.

Table 3.6 presents the results. Consistent with previous studies, column (1) and (2) show that scandals hurt the party: if Democratic or Republican party has an incumbent or a candidate involved in a scandal, they lose about 2.4 to 2.6 percent of votes. The coefficient of *Scandal* is negative when I regress a Democrat wins indicator variable on *Scandal*, as shown in columns (5) and (6), but it is not statistically significant.

More importantly, the coefficient of *Congruence*  $\times$  *Scandal* is negative and statistically significant in all specifications. According to the estimate in column (4), scandal decreases the party vote percentage by 0.6 percent in low congruence districts (*Congruence* = 0.213, one standard deviation below the mean). In contrast, scandal decreases the vote percentage by 4.6 percent in high congruence districts (*Congruence* = 0.689, one standard deviation above the mean).

I repeat the analysis using county level data and estimate the following model<sup>57</sup>:

$$\begin{aligned} DemVote_{ct} = & \beta_1 PresVote_{ct} + \beta_2 Scandal_{ct} + \beta_3 Congruence_{ct} \\ & \beta_4 Congruence_{ct} \times Scandal_{ct} + \delta'X_{ct} + \alpha_c + \theta_t + \epsilon_{ct}, \end{aligned} \quad (13)$$

where *PresVote<sub>ct</sub>* is the (interpolated) Democratic percentage of the two-party presidential vote, and  $\alpha_c$  is a county fixed effect.  $X_{ct}$  is a vector of county control variables: population (logged), per capita income (logged), the share of urban population, population density (logged), population aged 25 and older with 1–11 years of education and with more than 12 years of education (as a share of all population aged 25 and older), the share of people aged 65 or older, the share black, and the share female. Note that *Congruence* is now defined at the county level (see Table 3.5 for summary statistics).

The results, reported in Table 3.7, are consistent with previous findings. Scandal decreases the party vote percentage by about 3.8 to 4.6 percent (columns (1)–(3)). The negative effect of scandal is greater in high congruence counties, as columns (4)–(6) show: the coefficient of

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<sup>57</sup>Again, the elections immediately following redistricting are excluded except at-large districts – 1982, 1992, 2002, and Texas in 2004.



$Congruence \times Scandal$  is negative and statistically significant. According to the estimate in column (6), scandal decreases the vote percentage by 3.5 in low congruence counties ( $Congruence = 0.201$ , one standard deviation below the mean), while it decreases the vote percentage by 5.4 in high congruence counties ( $Congruence = 0.803$ , one standard deviation above the mean,).

Table 3.7: Newspaper Market and the Effect of Scandal: County

	Dependent Var = Democratic Vote Pct					
	(1)	(2)	(3)	(4)	(5)	(6)
Democratic vote pct (Pres)			0.619 (0.016)			0.618 (0.016)
Incumbent	13.147 (0.194)	13.049 (0.193)	12.218 (0.152)	13.144 (0.195)	13.045 (0.193)	12.218 (0.152)
Scandal	-3.770 (0.451)	-3.881 (0.440)	-4.588 (0.436)	-1.723 (0.995)	-1.704 (0.949)	-2.845 (0.928)
Congruence				1.808 (0.785)	2.240 (0.769)	1.741 (0.589)
Congruence $\times$ Scandal				-3.775 (1.363)	-4.011 (1.313)	-3.210 (1.265)
Controls	No	Yes	Yes	No	Yes	Yes
Observations	16171	16171	16171	16171	16171	16171
$R^2$	0.832	0.837	0.865	0.833	0.837	0.865

Standard errors in parentheses, clustered by county. Year and county fixed effects included in all regressions.

To address the concern that the effect of  $Congruence \times Scandal$  may be due to some characteristics of districts/counties that are correlated with  $Congruence$ , I add an interaction of  $Scandal$  with each of district and county level control variable one at a time. The results, reported in Appendix Table C.2 and Appendix Table C.3, remain similar.

## Discussion

The results of this paper show that voters punish the parties involved in scandals when newspapers cover politicians in their district. They suggest that incumbent House members may get away with their wrongdoings because of a poor fit between newspaper markets and congressional districts. It is, however, only one explanation for why the majority of politicians in scandals get elected. I find that even in high-congruence districts, parties in scandals win more than half of the times. As previous studies suggest, voters may knowingly vote for politicians in scandals because they weigh a charge of wrongdoing with various factors such as partisanship or policy issues (e.g., Rundquist, Strom and Peters 1977). And these trade-offs can undermine electoral accountability. For instance, if voters strongly care about which party wins the election, they will vote for corrupt politicians even when they prefer non-corrupt politicians (Eggers 2014).

Information problems can pose a more serious threat to political accountability. Well-informed voters may be willing vote for a candidate implicated in a scandal if they think that she/he will better represent them than other candidates. In contrast, ignorant voters may vote for a politician involved in a scandal even when they want to elect a “clean” candidate. The media can improve political accountability by providing information to the latter type of voters. In fact, the results of this paper show that when newspapers cover scandals, voters are more likely to punish the parties in scandals.

Although this paper mainly focused on scandals, it would be interesting to test whether the media help voters make more informed decision in general using other measures of politicians’ quality or efforts. For instance, do the media help voters reward legislative efforts such as legislative productivity or more federal money to their districts? Previous studies suggest that voters reward such efforts (e.g., Levitt and Snyder 1997; Miquel and Snyder 2006). Therefore, House members in districts congruent with media markets could be helped by the media. However, if “bad news” get more attention than “good news” (e.g., Puglisi and Snyder 2008), productive incumbents would not necessarily do well in high-congruence districts. By

studying these issues we can better understand the role of the media in promoting electoral accountability.

## Appendix for Chapter 1.

### A.1. Data and Summary Statistics

#### A.1.1 Data

##### A.1.1.1 Television Market

To record television penetration at the county level, I use data on the availability of television in each U.S. city from the Interuniversity Consortium for Political and Social Research (ICPSR) Study 22720 by Gentzkow (2006). It uses various issues of *Television Factbook*, a yearly data that contains information about each television station in the U.S. including its location, signal strength, network affiliation, ownership, and starting date. He collects the names and the start date of the first commercial television station in each media market. To determine the first date when television entered each county, he uses the Designated Market Area (DMA), developed by Nielsen Media Research, which assigns every county in the U.S. to one DMA based on viewing patterns. I code a county as having television if it is in a DMA of at least one commercial television station in a given year.<sup>58</sup>

##### A.1.1.2 Economic Variables

To assess how television affects economic voting, I use two economic variables: national and state level income per capita data from the Bureau of Economic Analysis for the years 1944 to 1964<sup>59</sup> and national level unemployment data from the Bureau of Labor Statistics.<sup>60</sup> I exclude the year 1944 from the sample when I use the unemployment rate variable, because

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<sup>58</sup>Following Gentzkow (2006), I assign the year 1946 as the first television year for all the counties that had television before 1946, because penetration of television was negligible before that year.

<sup>59</sup>Per capita income is in 1960 dollars.

<sup>60</sup>Unfortunately, the state level unemployment data is not available for the sample period of this study.

unemployment data prior to 1947 is not directly comparable to the data since 1947.<sup>61</sup>

#### **A.1.1.3 Newspaper Market**

The main source of newspaper market data is *Editor and Publisher Yearbook*, which is an annual publication that contains directories of U.S. newspapers. The directory has been used by advertisers and intended to be complete (Gentzkow, Shapiro and Sinkinson 2011).<sup>62</sup> From the directory, I collect each newspaper's name, partisanship, frequency as well as size of circulation, and city of publication for every presidential year from 1944 to 1964.

Since the unit of analysis is a county, I match each city to a county and construct data at the county level. I count the number of Republican, Democratic, and Independent newspapers in all cities that belong to the same county.<sup>63</sup> Similarly, I aggregate circulation of each type of newspaper at the county level. Unfortunately, the *Yearbook* does not provide detailed information about where each newspaper is circulated. According to Gentzkow and Shapiro (2010), the median newspaper circulates more than 80% of its papers in the county where it is located, and the median county gets more than 80% of its copies from in county newspapers today. Since improvements in transportation made it easier for newspapers to circulate their copies outside their county, it would be safe to assume that pre-television local newspaper markets were even smaller. Therefore, I define newspaper market as a county.

#### **A.1.1.4 Election and Census Data**

I also include a variety of demographic and socio-economic variables, measured at the county level. More specifically, I extract the following variables from the U.S. census files from the

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<sup>61</sup>While the unemployment rate estimates since 1947 are calculated based on persons 16 years of age and over, the figures before 1947 are based on persons 14 years of age and over.

<sup>62</sup>While the *Yearbook* is considered as one of the authoritative sources and often used by historical researchers (Gentzkow, Shapiro and Sinkinson 2011), the directory is not complete. I have found newspapers from other sources that are not listed in the directory. But since the list is intended to be complete, I assume that newspapers with large enough circulation to be valuable to advertisers are included in the directory.

<sup>63</sup>The *Yearbook* sometimes classifies a newspaper as "ID" or "IR," which means Independent Democrat and Independent Republican. I treated these papers as Independent. The results of the analyses in the paper are similar when I classify these as partisan papers.

ICPSR Study 2896 by Haines (2006): total population, population per square mile; the white population; the female population; the population aged 21 and older; the population living in towns with 25,000 or more residents; the population aged 25 and older; the population aged 25 and older with more than 12 years of education; and the total dollar value of manufacturing output. I linearly interpolate each number between census years.

Using these variables, I construct the share of white population, the share of females, the share of population living in cities with 25,000 or more people, population aged 25 and older with more than 12 years of education as a share of all the population aged 25 and older, and the log of total dollar value of manufacturing output per-capita.<sup>64</sup>

Finally, I calculate the Democratic vote share in presidential elections from 1944 to 1964.

#### **A.1.1.5 Newspaper Articles**

To analyze the reporting behavior of partisan newspapers, I count the number of articles mentioning presidential candidates of Democratic and Republican parties from newspaper-archive.com using automated key-words based searching for every presidential election year from 1944 to 1960.<sup>65</sup> For each newspaper, I search for articles that contain the last name of the candidate from each party and the word “election.” For instance, to count the number of articles mentioning Democratic presidential candidate in 1948 published in newspaper *i*, I search articles of newspaper *i* containing the words “Truman” and “election.” Then, using the newspaper directory data from *Editor and Publisher Yearbook*, I collect partisanship, frequency and size of circulation, city, and county of each newspaper.

#### **A.1.1.6 Survey Data**

To analyze the effect of television on media consumption behavior at the individual level, I use the American National Election Study (NES) 1952, 1956, and 1960 (ICPSR study 7213

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<sup>64</sup>All dollar values are in 1960 dollars.

<sup>65</sup>I used PERL scripts to automate the data-collection process.

and 7252). I match counties in the NES data and counties in the television data to determine whether respondents lived in areas with access to television.

## A.1.2 Summary Statistics

Appendix Table A.1: Summary Statistics: Newspaper Articles

	Obs.	Mean	Standard Deviation	Minimum	Maximum
Articles about Democratic Candidate	649	395	236	24	2201
Articles about Republican Candidate	649	406	260	24	1732
Relative Dem Hits	649	0.50	0.12	0.22	0.85
Democratic Vote Share	649	0.47	0.13	0.18	0.96

Appendix Table A.2: Summary Statistics: Economic Voting

	Years	Obs.	Mean	Standard Deviation	Minimum	Maximum
$\Delta$ National Per Capita Income	1944–1964	14,881	3.04	1.95	0.07	5.89
$\Delta$ State Per Capita Income	1944–1964	14,881	3.39	4.09	-13.90	21.87
TV Dummy (1 if TV)	1944–1964	14,881	0.60	0.49	0	1
$\Delta$ National Unemployment Rate	1948–1964	12,561	0.25	0.18	0	0.5
TV Dummy (1 if TV)	1948–1964	12,561	0.71	0.45	0	1

All dollar values are in 1960 dollars.



Appendix Table A.3: Summary Statistics: Newspaper Market

	Obs.	Mean	Standard Deviation	Minimum	Maximum
TV Dummy (1 if TV)	4,752	0.59	0.49	0	1
Relative Democratic Newspaper Circulation	4,752	-0.01	0.09	-0.51	0.59

The time period is 1944–1964.

Appendix Table A.4: Summary Statistics: Television and Newspaper Circulation

	Obs.	Mean	Standard Deviation	Minimum	Maximum
Circulation Per Thousand	5,484	244	135	12	2,374
TV Dummy (1 if TV)	5,484	0.59	0.49	0	1
TV Year	5,484	4.68	5.19	0	18

The time period is 1944–1964.

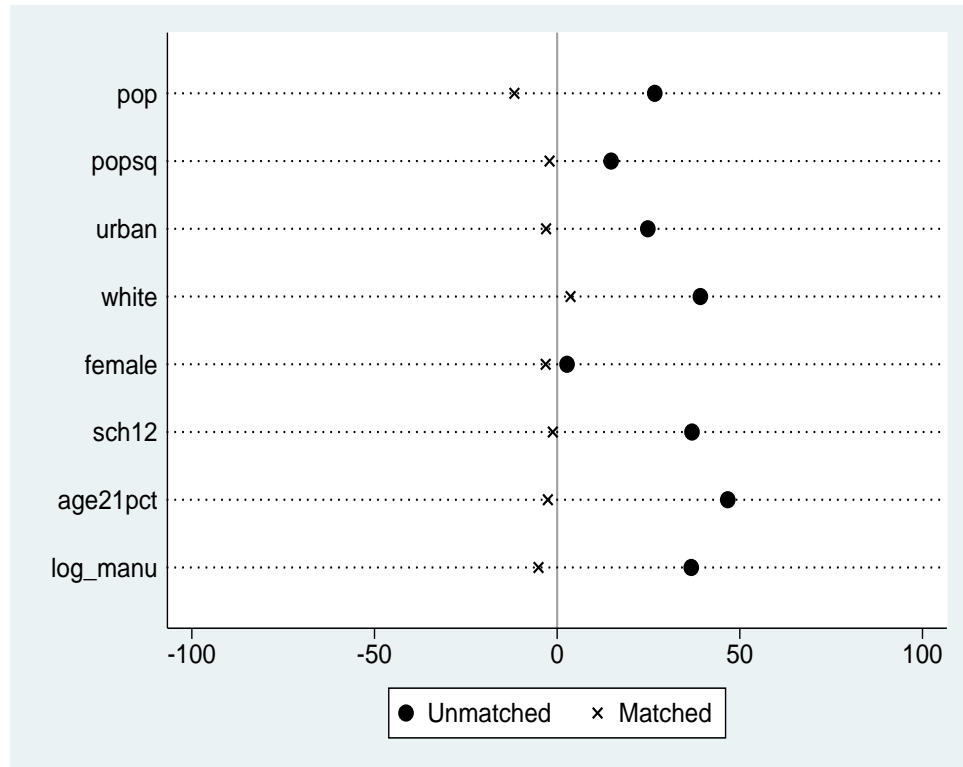
Appendix Table A.5: Summary Statistics: Media Use

	Years	Obs.	Yes (1)	No (0)
Campaign Info from Newspaper	1952	1,413	288	1,125
Campaign Info from TV	1952	1,413	686	727
TV Dummy (1 if TV)	1952	1,413	445	968
Campaign Info from Newspaper	1952–1960	3,905	854	3,051
Campaign Info from TV	1952–1960	3,905	1,096	2,809
TV Dummy (1 if TV)	1952–1960	3,905	508	3,397

## A.2. Robustness Checks

### A.2.1 Matching

Appendix Figure A.1: Standardized Difference between Pre-Freeze and Post-Freeze Counties, Before and After Matching



This figure plots standardized difference in the pre-freeze and post-freeze counties on the set of covariates before and after matching. I did one to one propensity score matching with a caliper of 0.05.

Appendix Table A.6: Economic Voting and TV in Presidential Elections, Matched Sample

	Dependent Var = Incumbent Vote Share							
	Per Capita Income (1944–1964)				Unemployment (1948–1964)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TV	0.986 (0.837)	2.271 (0.805)	0.482 (0.672)	2.166 (0.738)	4.896 (0.810)	0.403 (0.940)	-0.260 (0.809)	1.296 (1.034)
$\Delta$ National Income	-0.928 (0.177)							
TV $\times$ $\Delta$ National Income	3.805 (0.249)	5.627 (0.813)	2.567 (0.729)	4.002 (0.807)				
$\Delta$ National Unemployment					-8.904 (0.580)			
TV $\times$ $\Delta$ National Unemployment					10.821 (0.622)	7.005 (1.166)	3.722 (1.042)	5.258 (1.301)
<i>Controls</i>								
Population (Thousand)	-0.046 (0.028)	-0.070 (0.028)	0.047 (0.020)	-0.072 (0.071)	-0.062 (0.021)	-0.062 (0.020)	0.032 (0.020)	-0.181 (0.209)
Pct. Female	1.245 (0.391)	1.874 (0.366)	-1.131 (0.425)	-1.426 (0.695)	1.806 (0.356)	0.930 (0.373)	-1.343 (0.502)	-4.055 (1.779)
Pct. Urban	0.040 (0.003)	-0.002 (0.004)	0.006 (0.003)	0.007 (0.004)	0.017 (0.009)	0.018 (0.010)	0.011 (0.008)	-0.002 (0.011)
Population Per sq. Mile	-0.001 (0.003)	-0.001 (0.004)	-0.001 (0.003)	0.013 (0.007)	-0.000 (0.002)	0.001 (0.002)	-0.000 (0.003)	0.030 (0.013)
Pct. White	-2.520 (0.265)	-2.431 (0.254)	0.243 (0.162)	3.923 (0.622)	-1.478 (0.305)	-1.407 (0.313)	0.559 (0.208)	7.960 (1.146)
Pct. 21+	-2.371 (0.166)	-1.858 (0.179)	0.638 (0.148)	-1.363 (0.564)	-2.166 (0.170)	-2.174 (0.174)	0.494 (0.153)	-2.240 (1.017)
Pct. 12+ Yrs of Education	0.110 (0.072)	0.386 (0.150)	-0.218 (0.116)	-1.564 (0.242)	-0.062 (0.074)	-0.677 (0.168)	-0.316 (0.133)	-3.054 (0.467)
Log Per Capita Manufacturing Output	-0.185 (0.631)	0.275 (0.636)	1.597 (0.460)	2.466 (1.036)	0.796 (0.638)	0.129 (0.659)	1.401 (0.509)	3.623 (1.624)
Fixed Effects	County	County	County	County	County	County	County	County
County Trends	No	Year	State-Year	Year	No	Year	State-Year	Year
Observations	10839	10839	10839	10839	9131	9131	9131	9131

This table replicates Table 1.3 using matched sample. Standard errors in parentheses, clustered by county.  $\Delta$ National Income and  $\Delta$ National Unemployment are standardized.

Appendix Table A.7: Economic Voting and TV in Presidential Elections (with State Economy Variable), Matched Sample

	Dependent Var = Incumbent Vote Share							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TV	0.802 (0.781)	1.927 (0.808)	0.361 (0.672)	2.078 (0.738)	1.425 (0.823)	2.233 (0.807)	0.474 (0.671)	2.176 (0.739)
$\Delta$ State Income	1.603 (0.182)	1.313 (0.155)		0.219 (0.101)	1.905 (0.178)	1.354 (0.156)		0.244 (0.100)
TV $\times$ $\Delta$ State Income	1.541 (0.347)	1.048 (0.381)	0.732 (0.869)	1.195 (0.384)	-0.307 (0.390)	0.712 (0.377)	-0.527 (0.973)	0.982 (0.388)
$\Delta$ National Income					-1.447 (0.163)			
TV $\times$ $\Delta$ National Income					3.551 (0.272)	4.958 (0.800)	2.779 (0.829)	3.486 (0.818)
<i>Controls</i>								
Population (Thousand)	-0.050 (0.028)	-0.071 (0.028)	0.048 (0.020)	-0.067 (0.070)	-0.050 (0.029)	-0.073 (0.028)	0.047 (0.020)	-0.071 (0.071)
Pct. Female	1.131 (0.379)	1.696 (0.365)	-1.127 (0.426)	-1.503 (0.695)	1.098 (0.394)	1.690 (0.365)	-1.133 (0.426)	-1.491 (0.695)
Pct. Urban	0.030 (0.003)	-0.002 (0.004)	0.006 (0.003)	0.008 (0.004)	0.038 (0.003)	-0.002 (0.004)	0.005 (0.003)	0.008 (0.004)
Population Per sq. Mile	-0.000 (0.003)	-0.000 (0.004)	-0.001 (0.003)	0.012 (0.007)	-0.000 (0.003)	-0.000 (0.004)	-0.001 (0.003)	0.012 (0.007)
Pct. White	-2.396 (0.256)	-2.382 (0.252)	0.244 (0.163)	3.833 (0.618)	-2.429 (0.260)	-2.379 (0.252)	0.243 (0.163)	3.863 (0.619)
Pct. 21+	-2.030 (0.160)	-1.773 (0.178)	0.635 (0.148)	-1.222 (0.561)	-2.192 (0.167)	-1.763 (0.178)	0.639 (0.148)	-1.238 (0.562)
Pct. 12+ Yrs of Education	0.163 (0.070)	0.336 (0.148)	-0.221 (0.116)	-1.558 (0.242)	0.129 (0.071)	0.340 (0.148)	-0.218 (0.116)	-1.553 (0.242)
Log Per Capita Manufacturing Output	0.117 (0.617)	0.368 (0.634)	1.592 (0.460)	2.416 (1.035)	0.071 (0.628)	0.388 (0.633)	1.596 (0.460)	2.443 (1.034)
Fixed Effects	County	County	County	County	County	County	County	County
	Year	Year	State-Year	Year	Year	Year	State-Year	Year
County Trends	No	No	No	Yes	No	No	No	Yes
Observations	10839	10839	10839	10839	10839	10839	10839	10839

This table replicates Table 1.4 using matched sample. Standard errors in parentheses, clustered by county.  $\Delta$ National Income and  $\Delta$ State Income are standardized. The time period is 1944–1964.

Appendix Table A.8: The Effect of Newspaper and TV on Democratic Vote Share in Presidential Elections, Matched Sample

	Dependent Var = Democratic Vote Share					
	(1)	(2)	(3)	(4)	(5)	(6)
TV				0.818 (0.403)	0.426 (0.341)	1.235 (0.436)
Relative Democratic Paper Circ	0.483 (0.232)	0.166 (0.132)	0.057 (0.225)	1.271 (0.283)	0.482 (0.157)	0.369 (0.253)
TV $\times$ Relative Democratic Paper Circ				-1.495 (0.273)	-0.583 (0.157)	-0.629 (0.270)
<i>Controls</i>						
Population (Thousand)	-0.082 (0.018)	-0.009 (0.011)	0.022 (0.044)	-0.078 (0.017)	-0.008 (0.011)	0.030 (0.043)
Pct. Female	0.974 (0.452)	-0.621 (0.299)	0.456 (0.698)	0.894 (0.437)	-0.612 (0.300)	0.471 (0.695)
Pct. Urban	0.016 (0.005)	0.009 (0.004)	0.022 (0.006)	0.016 (0.005)	0.008 (0.004)	0.021 (0.006)
Population Per sq. Mile	0.008 (0.004)	-0.001 (0.001)	0.007 (0.004)	0.008 (0.004)	-0.000 (0.001)	0.007 (0.003)
Pct. White	-0.939 (0.333)	0.098 (0.219)	0.187 (0.663)	-0.914 (0.334)	0.087 (0.219)	0.186 (0.661)
Pct. 21+	-1.501 (0.156)	-0.067 (0.130)	-0.465 (0.348)	-1.403 (0.151)	-0.051 (0.129)	-0.480 (0.346)
Pct. 12+ Yrs of Education	0.306 (0.156)	-0.206 (0.121)	0.319 (0.173)	0.327 (0.152)	-0.181 (0.121)	0.317 (0.174)
Log Per Capita Manufacturing Output	-1.464 (0.741)	0.762 (0.426)	1.241 (0.789)	-1.334 (0.733)	0.786 (0.425)	1.296 (0.786)
Fixed Effects	County Year	County State-Year	County Year	County Year	County State-Year	County Year
County Trends	No	No	Yes	No	No	Yes
Observations	4848	4848	4848	4848	4848	4848

This table replicates Table 1.5 using matched sample. Standard errors in parentheses, clustered by county. Relative Democratic Paper Circ is standardized. The time period is 1944–1964.

## A.2.2 Pairing of Pre and Post-Freeze Counties

In this subsection, I address the concern that the difference between the counties where television entered earlier and those that received television later might drive the main results. Appendix Figure A.2 illustrates the distribution of the pre and post-freeze counties. The figure shows that the pre-freeze counties are concentrated around the center of each media market.

To compare counties that are similar on observed and unobserved attributes, I pair each pre-freeze county to one post-county based on geographic proximity and demographic similarity. I first identify all the centers of media markets<sup>66</sup> that had television before the freeze and exclude them from the sample. Then, for each pre-freeze county, I locate all the contiguous post-freeze counties. Note that one pre-freeze county can have multiple post-freeze counties that are contiguous to it. From among these post-freeze counties, I choose the one that is most similar to the pre-freeze county in demographic characteristics. I throw out all the pre-freeze counties that are not contiguous to at least one post-freeze county and all the post-freeze counties not contiguous to at least one pre-freeze county.

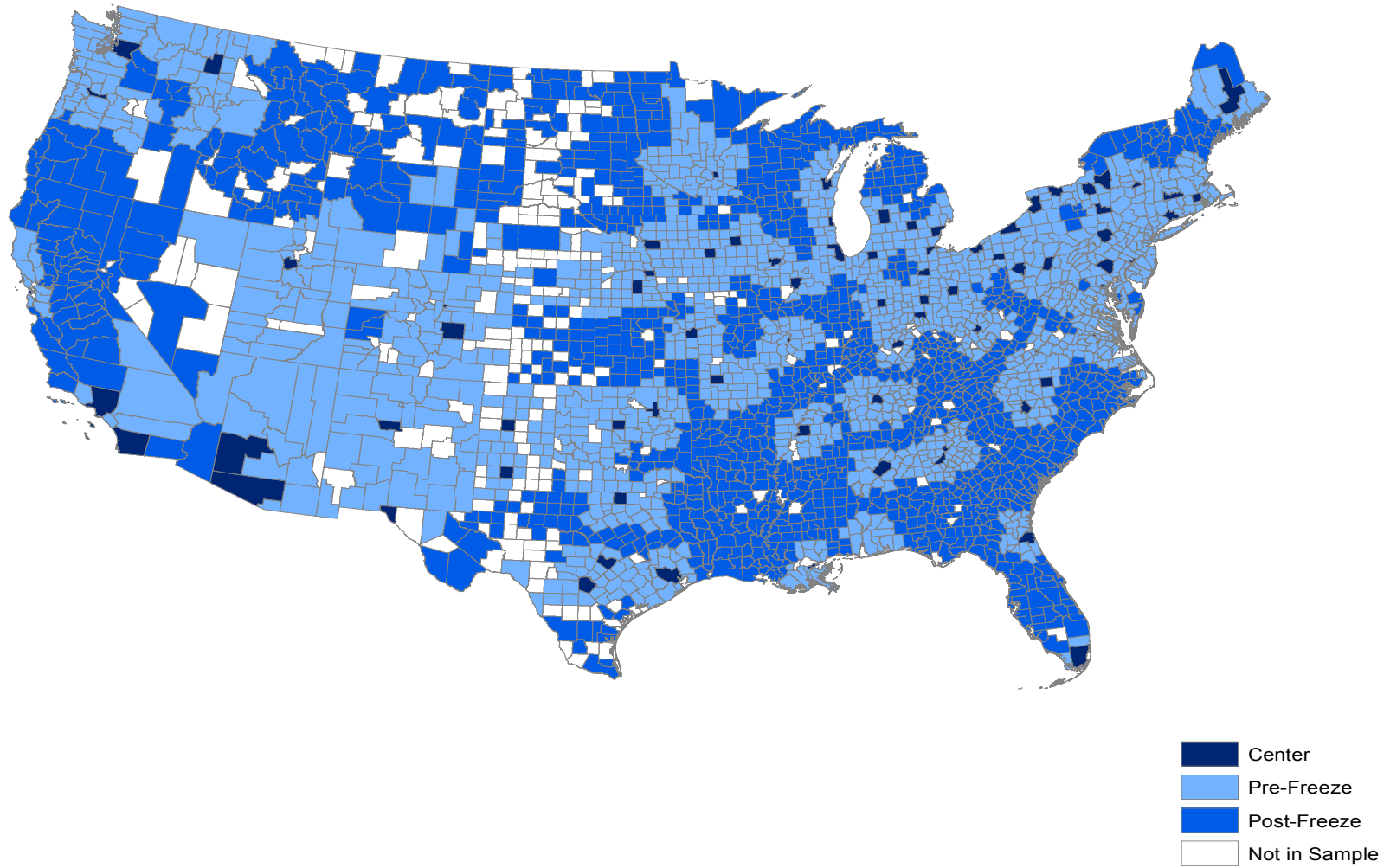
The resulting sample is shown in Appendix Figure A.3. By restricting the sample to these paired counties, I compare counties that are happened to be just inside a media market and those that are just outside a media market. Appendix Figure A.4 plots the standardized difference in the pre-freeze and post-freeze counties on the set of covariates. It shows that the paired counties are indeed similar in demographic characteristics, even though the pairing is based primarily on geographic proximity.

Appendix Tables A.9, A.10, and A.11 replicate the results in Tables 1.3, 1.4, and 1.5 respectively. These tables show that the main results reported in the text are robust to the sample restriction.

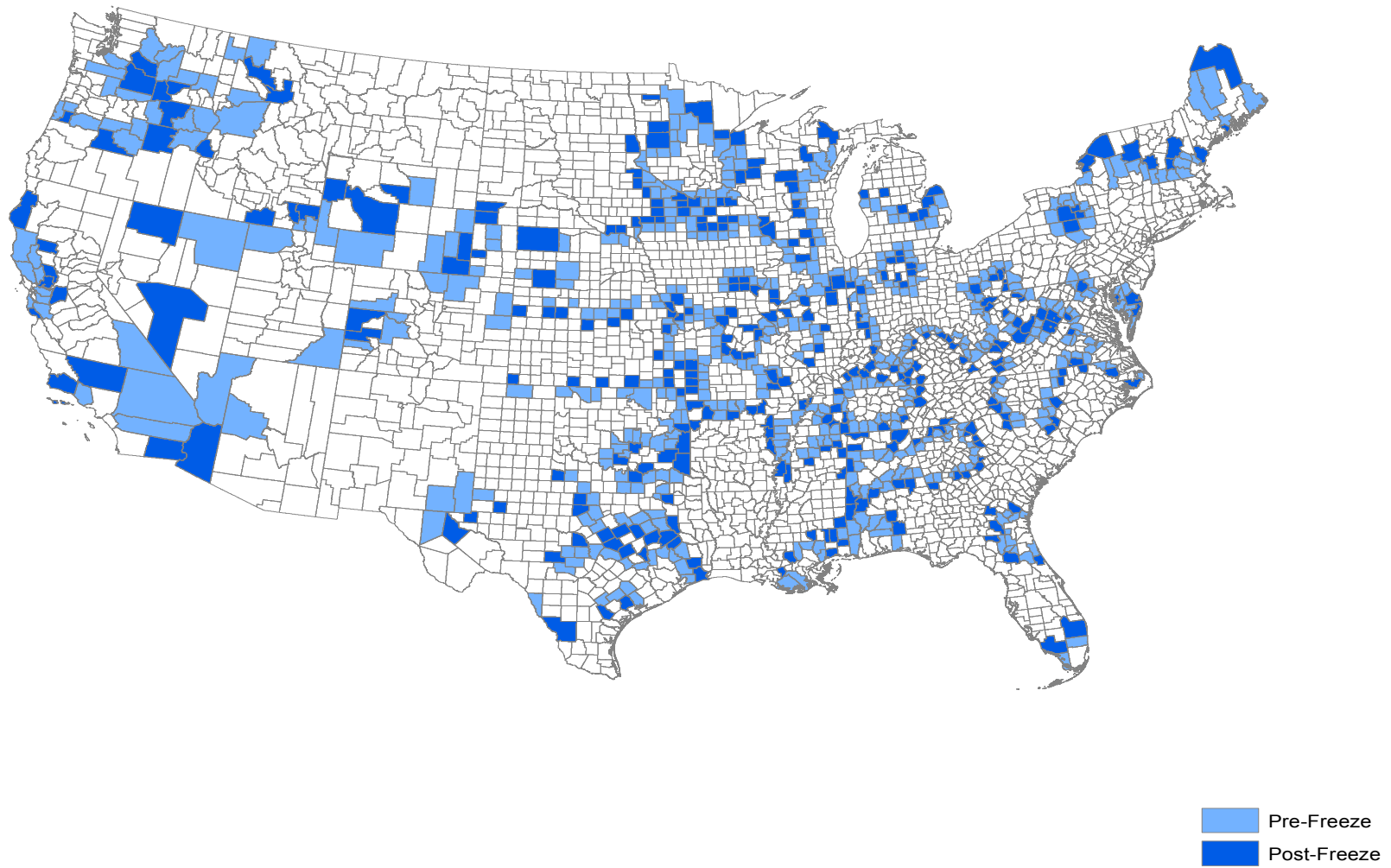
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<sup>66</sup>The center of a media market is defined as a county in which a television station is located.

Appendix Figure A.2: Distribution of the Pre and Post-Freeze Counties, All Sample

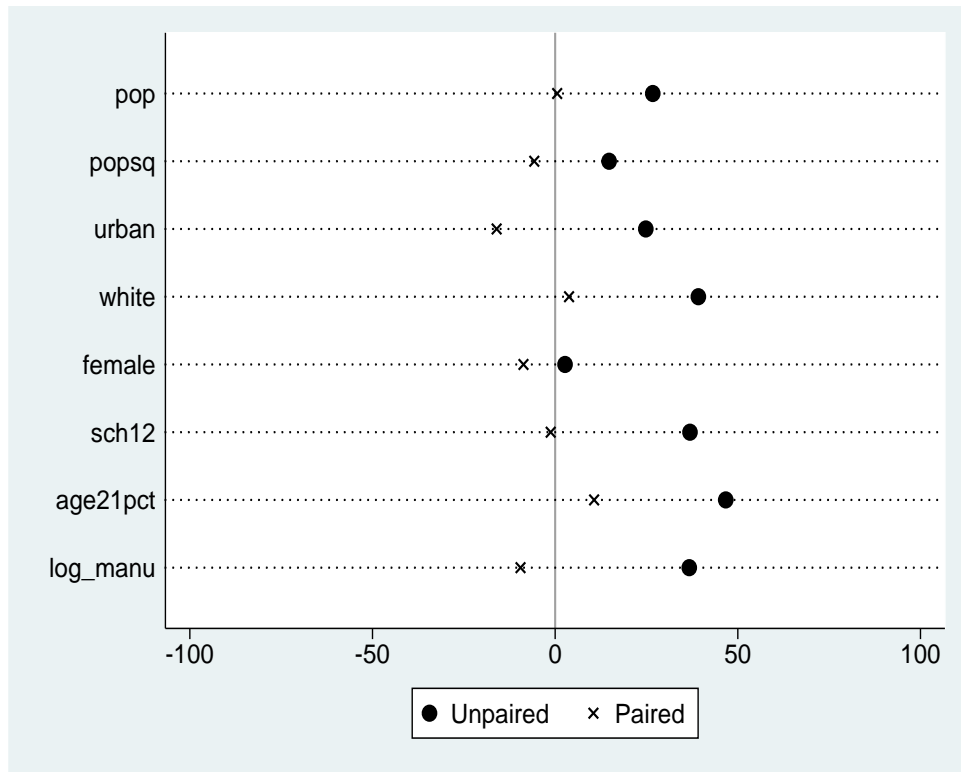


Appendix Figure A.3: Distribution of the Pre and Post-Freeze Counties, Paired Sample





Appendix Figure A.4: Standardized Difference between Pre-Freeze and Post-Freeze Counties, Before and After Pairing



This figure plots standardized difference in the pre-freeze and post-freeze counties on the set of covariates before and after pairing.

Appendix Table A.9: Economic Voting and TV in Presidential Elections, Paired Sample

	Dependent Var = Incumbent Vote Share			
	Per Capita Income (1944–1964)		Unemployment (1948–1964)	
	(1)	(2)	(3)	(4)
TV	-0.857 (1.568)	0.985 (1.082)	3.840 (1.437)	-0.286 (1.216)
$\Delta$ National Income	-1.106 (0.341)			
$TV \times \Delta$ National Income	4.140 (0.464)	5.215 (0.995)		
$\Delta$ National Unemployment			-8.598 (1.062)	
$TV \times \Delta$ National Unemployment			10.551 (1.103)	6.629 (1.395)
<i>Controls</i>				
Population (Thousand)	-0.046 (0.037)	-0.058 (0.033)	-0.049 (0.019)	-0.055 (0.019)
Pct. Female	1.929 (0.504)	2.048 (0.509)	2.029 (0.442)	1.036 (0.466)
Pct. Urban	0.044 (0.007)	0.007 (0.008)	0.017 (0.016)	0.012 (0.017)
Population Per sq. Mile	0.012 (0.018)	0.014 (0.018)	0.020 (0.010)	0.021 (0.011)
Pct. White	-3.058 (0.559)	-2.930 (0.532)	-1.552 (0.526)	-1.535 (0.547)
Pct. 21+	-2.660 (0.316)	-2.256 (0.356)	-2.510 (0.328)	-2.550 (0.339)
Pct. 12+ Yrs of Education	0.285 (0.124)	0.332 (0.301)	0.003 (0.135)	-0.865 (0.340)
Log Per Capita Manufacturing Output	-0.244 (1.221)	0.204 (1.207)	1.218 (1.188)	0.297 (1.241)
Fixed Effects	County	County Year	County	County Year
Observations	4746	4746	4001	4001

This table replicates Table 1.3 using paired sample. Standard errors in parentheses, clustered by pair.  $\Delta$ National Income and  $\Delta$ National Unemployment are standardized. The time period is 1944–1964.

Appendix Table A.10: Economic Voting and TV in Presidential Elections (with State Economy Variable), Paired Sample

Dependent Var = Incumbent Vote Share				
	(1)	(2)	(3)	(4)
TV	-1.146 (1.472)	0.266 (1.087)	-0.374 (1.530)	0.991 (1.085)
$\Delta$ State Income	1.499 (0.363)	1.424 (0.326)	1.838 (0.363)	1.492 (0.331)
$TV \times \Delta$ State Income	1.717 (0.679)	0.741 (0.776)	-0.701 (0.813)	0.216 (0.784)
$\Delta$ National Income			-1.576 (0.309)	
$TV \times \Delta$ National Income			4.024 (0.521)	4.881 (1.008)
<i>Controls</i>				
Population (Thousand)	-0.053 (0.036)	-0.060 (0.033)	-0.050 (0.036)	-0.062 (0.034)
Pct. Female	1.860 (0.484)	1.916 (0.509)	1.847 (0.502)	1.908 (0.509)
Pct. Urban	0.032 (0.006)	0.007 (0.008)	0.042 (0.007)	0.007 (0.008)
Population Per sq. Mile	0.014 (0.019)	0.014 (0.019)	0.011 (0.018)	0.014 (0.018)
Pct. White	-2.903 (0.532)	-2.866 (0.523)	-2.953 (0.546)	-2.863 (0.525)
Pct. 21+	-2.331 (0.304)	-2.170 (0.350)	-2.498 (0.317)	-2.151 (0.350)
Pct. 12+ Yrs of Education	0.337 (0.123)	0.264 (0.297)	0.296 (0.122)	0.271 (0.296)
Log Per Capita Manufacturing Output	0.156 (1.185)	0.287 (1.202)	-0.034 (1.213)	0.294 (1.198)
Fixed Effects	County	County Year	County	County Year
Observations	4746	4746	4746	4746

This table replicates Table 1.4 using paired sample. Standard errors in parentheses, clustered by pair.  $\Delta$ National Income and  $\Delta$ State Income are standardized. The time period is 1944–1964.

Appendix Table A.11: The Effect of Newspaper and TV on Democratic Vote Share in Presidential Elections, Paired Sample

Dependent Var = Democratic Vote Share		
	(1)	(2)
TV		-0.141 (0.522)
Relative Democratic Paper Circ	0.730 (0.300)	1.385 (0.417)
TV $\times$ Relative Democratic Paper Circ		-1.089 (0.363)
<i>Controls</i>		
Population (Thousand)	-0.028 (0.015)	-0.027 (0.015)
Pct. Female	-0.001 (0.594)	-0.000 (0.584)
Pct. Urban	0.014 (0.006)	0.014 (0.006)
Population Per sq. Mile	-0.001 (0.016)	-0.001 (0.016)
Pct. White	-0.720 (0.594)	-0.697 (0.602)
Pct. 21+	-1.617 (0.211)	-1.526 (0.205)
Pct. 12+ Yrs of Education	0.324 (0.207)	0.327 (0.204)
Log Per Capita Manufacturing Output	-1.496 (1.083)	-1.221 (1.087)
Fixed Effects	County Year	County Year
Observations	1458	1458

This table replicates Table 1.5 using paired sample. Standard errors in parentheses, clustered by pair. Relative Democratic Paper Circ is standardized. The time period is 1944–1964.

### A.2.3 Auxiliary Regressions

#### A.2.3.1 National Economy, State Economy, and Television

To show that the state economy is not more closely tied to the national economy when television is present, I estimate regressions of the following:

$$State\ Income_{st} = \beta_0 + \beta_1 TV_{st} + \beta_2 National\ Income_t + \beta_3 TV_{st} \times National\ Income_t + \epsilon_{st}. \quad (14)$$

Note that the variables are now defined at the state level.  $TV_{st}$  is the share of the population in state  $s$  in year  $t$  living in counties with television. All the variables except  $TV$  are standardized. Appendix Table A.12 presents the result. In column (1), I use the level of state and national income and in column (2), I use the one-year change in these economic indicators. In both columns, the coefficient of  $TV \times National\ Income$  is small and statistically insignificant. The results suggest that television did not increase the effect of the national economy on the state economy.

#### A.2.3.2 The Entry of Television and Partisan Newspaper Circulation

Next, I examine whether the entry of television is correlated with the partisan preference of newspaper readers. I estimate the following model:

$$TV_{ct} = \beta Partisan\ Paper\ Circ_{c(t-1)} + \gamma' X_{ct} + \epsilon_{ct}, \quad (15)$$

where  $Partisan\ Paper\ Circ_{c(t-1)}$  is the total circulation of partisan newspapers divided by the population in county  $c$  in year  $t - 1$  and the vector  $X_{ct}$  includes county level control variables and fixed effects as described in the text following equation (1). If television enters counties where newspaper readers are becoming less partisan, we would observe  $\beta < 0$ . However, as shown in Appendix Table A.13, the coefficient of  $Partisan\ Paper\ Circ$  is close to zero in all the specifications. The results indicate that the entry of television is not related

to the partisan tastes of newspaper readers.

Appendix Table A.12: Auxiliary Regression: National Economy, State Economy and TV

	Dependent Var =	
	State Income	$\Delta$ State Income
	(1)	(2)
TV	-0.550 (1.817)	-0.684 (1.198)
National Income	0.426 (0.240)	
TV $\times$ National Income	0.089 (0.239)	
$\Delta$ National Income		0.780 (0.220)
TV $\times$ $\Delta$ National Income		0.168 (0.273)
Observations	277	277

Standard errors in parentheses, clustered by state. All the variables except TV are standardized. The time period is 1944–1964.

Appendix Table A.13: Auxiliary Regression: The Entry of TV and Partisan Newspaper Circulation

	Dependent Var = TV		
	(1)	(2)	(3)
Lagged Partisan Paper Circ	0.011 (0.009)	0.008 (0.008)	0.009 (0.012)
Population (Thousand)	-0.000 (0.000)	-0.000 (0.000)	-0.001 (0.001)
Pct. Female	0.021 (0.016)	-0.005 (0.017)	-0.006 (0.044)
Pct. Urban	0.000 (0.000)	-0.000 (0.000)	0.000 (0.001)
Population Per sq. Mile	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Pct. White	0.029 (0.007)	0.019 (0.007)	-0.006 (0.028)
Pct. 21+	0.014 (0.005)	0.014 (0.005)	0.031 (0.015)
Pct. 12+ Yrs of Education	0.009 (0.004)	0.004 (0.004)	0.028 (0.009)
Log Per Capita Manufacturing Output	0.010 (0.020)	-0.015 (0.019)	0.016 (0.044)
Fixed Effects	County Year	County State-Year	County Year
County Trends	No	No	Yes
Observations	4040	4040	4040

Standard errors in parentheses, clustered by county. Lagged Relative Democratic Paper Circ is standardized. The time period is 1944–1964.

## Appendix for Chapter 2.

Appendix Table B.1: List of Political Scandals

Name	Office	State	Party	Scandal	Time Window	Source*
Rufus Brown Bullock	Governor	GA	R	Bribery	3/1870 to 5/1870	(1)
Roderick R. Butler	Representative	TN	R	Fraud & forgery	7/1870 to 1/1871	(1)
William Woods Holden	Governor	NC	R	Misuse of state militia	9/1870 to 3/1871	(1), (2)
David Christy Butler	Governor	NE	R	Corruption	1/1871 to 6/1871	(1), (2)
Thomas Osborn	Senator	FL	R	Bribery & fraud	4/1871 to 4/1871	(1)
William H. Bumsted	Commiss Board of Works	NJ	R	Conspiracy & fraud	9/1871 to 6/1872	(1)
Abraham Oakey Hall	Mayor	NY	R	Malfeasance	10/1871 to 11/1871	(1), (2)
William Magear Tweed	State Senator	NY	D	Embezzlement	10/1871 to 11/1873	(1), (2)
Alexander Caldwell	Senator	KS	R	Bribery	3/1872 to 3/1873	(1)
James Wood	State Senator	NY	R	Bribery	3/1872 to 9/1872	(1)
John F. Hartranft	State Auditor	PA	R	Corruption	8/1872 to 11/1872	(1)
Henry Wilson	Senator	MA	R	Bribery	9/1872 to 3/1873	(1)
Oakes Ames	Representative	MA	R	Bribery	9/1872 to 2/1873	(1), (2)
James Gillespie Blaine	Speaker of the House	ME	R	Bribery	9/1872 to 3/1873	(1)
James Brooks	Representative	NY	D	Bribery	9/1872 to 3/1873	(1), (2)
Henry Clay Warmouth	Governor	LA	R	Bribery	12/1872 to 1/1873	(2)
Lewis V. Bogy	Senator	MO	D	Bribery	1/1873 to 3/1873	(3)
Samuel Clark Pomeroy	Senator	KS	R	Bribery	1/1873 to 3/1875	(1)
William Seeger	State Treasurer	MN	R	Corruption	2/1873 to 5/1873	(2)
Edmund Jackson Davis	Governor	TX	R	Refusal to leave office	1/1874 to 1/1874	(2)
Josiah E. Hayes	State Treasurer	KS	R	High crimes & misdemeanor	1/1874 to 5/1874	(1)
William Adams Richardson	U.S. Treasury Secretary	USA	R	Tax revenue fraud (Sanborn Case)	3/1874 to 5/1874	(2)
Franklin J. Moses Jr	Governor	SC	R	Fraud & malfeasance	5/1874 to 10/1874	(1)

\*Sources:

(1): ProQuest's archive of the *Chicago Tribune*, *Atlanta Constitution*, *New York Times*, *San Francisco Chronicle* and *Washington Post*

(2): Political Graveyard

(3): Senate Historical Office

Search strings for individual scandals are available upon request.



Appendix Table B.1 – (continued)

Name	Office	State	Party	Scandal	Time Window	Source*
Tunis George Campbell	State Senator	GA	R	False convictions (while Justice of the Peace)	1/1875 to 1/1877	(2)
John Godfrey Schumaker	Representative	NY	D	Bribery	1/1875 to 11/1875	(1)
Richard Chappel Parsons	Representative	OH	R	Bribery	1/1875 to 11/1875	(1)
William Smith King	Representative	MN	R	Bribery	1/1875 to 11/1875	(1)
Alexander K. Davis	Lieutenant Governor	MS	R	Bribery	9/1875 to 3/1876	(1)
Joseph Rodman West	Senator	LA	R	Bribery	1/1876 to 12/1876	(1)
Frederick Adolphus Sawyer	Asst Treasury Secretary	USA	R	Forgery & fraud	1/1876 to 10/1877	(1)
William Pitt Kellogg	Governor	LA	R	Embezzlement	2/1876 to 3/1876	(1)
George Eliphaz Spencer	Senator	AL	R	Bribery	2/1876 to 5/1876	(1)
William Worth Belknap	Secretary of War	USA	R	Bribery	2/1876 to 8/1876	(1), (2)
William Robert Taylor	Governor	WI	D	Corruption	3/1876 to 7/1876	(1)
James Gillespie Blaine	Speaker of the House	ME	R	Bribery & fraud	4/1876 to 6/1876	(1)
Rufus Brown Bullock	Governor	GA	R	Larceny	5/1876 to 1/1878	(1)
Michael Crawford Kerr	Speaker of the House	IN	D	Bribery	5/1876 to 6/1876	(1)
La Fayette Grover	Senator	OR	D	Bribery & fraud	3/1877 to 6/1878	(3)
John James Patterson	Senator	SC	R	Bribery	9/1877 to 1/1878	(1)
Robert Smalls	Representative	SC	R	Bribery	10/1877 to 11/1877	(1)
John O'Connor	State Representative	OH	D	False identity	4/1878 to 5/1878	(1)
John Sherman	Senate, Sec of Treasury	USA	R	Fraud	5/1878 to 6/1878	(1)
Stanley Matthews	Senator	OH	R	Fraud	5/1878 to 10/1878	(1)
La Fayette Grover	Governor	OR	D	Corruption & fraud	11/1878 to 2/1879	(1)
Stephen F Chadwick	Governor	OR	D	Corruption & fraud	11/1878 to 2/1879	(1)
Noble Andrew Hull	House & Lt. Governor	FL	D	Fraud	1/1879 to 1/1881	(1)
John J. Ingalls	Senator	KS	R	Bribery & fraud	2/1879 to 2/1880	(3)
Charles B. Salter	State Representative	PA	R	Bribery	4/1879 to 5/1880	(1)
Emile J. Petroff	State Representative	PA	R	Bribery	4/1879 to 5/1880	(1)
George F. Smith	State Representative	PA	D	Bribery	4/1879 to 5/1880	(1)

\*Sources:

(1): ProQuest's archive of the *Chicago Tribune*, *Atlanta Constitution*, *New York Times*, *San Francisco Chronicle* and *Washington Post*

(2): Political Graveyard

(3): Senate Historical Office

Search strings for individual scandals are available upon request.

Appendix Table B.1 – (continued)

Name	Office	State	Party	Scandal	Time Window	Source*
William Henry Kemble	State Treasurer	PA	R	Bribery	4/1879 to 5/1880	(1)
William F. Rumberger	State Representative	PA	R	Bribery	4/1879 to 5/1880	(1)
William Pitt Kellogg	Senator	LA	R	Bribery	6/1879 to 5/1880	(1)
Washington L. Goldsmith	State Genl Comptroller	GA	D	Embezzlement	8/1879 to 9/1879	(1)
John W. Renfroe	State Treasurer	GA	D	Embezzlement	9/1879 to 10/1879	(1)
Isaac Smith Kalloch	Mayor	CA	D	Bribery	5/1880 to 6/1880	(1)
Charles Henry Voorhis	Representative	NJ	R	Fraud & embezzlement	10/1880 to 10/1881	(1), (2)
William Mahone	Senator	VA	R	Corruption & conspiracy	3/1881 to 5/1881	(1)
Stephen Wallace Dorsey	Senator	AR	R	Fraud	4/1881 to 6/1883	(1), (2)
Thomas J. Brady	Asst Postmaster General	USA	R	Bribery	4/1881 to 7/1884	(1)
Henry M. Hoyt	Governor	PA	R	Corruption	5/1881 to 5/1881	(1)
Chauncey Depew	Senate (candidate)	NY	R	Bribery	6/1881 to 7/1881	(1)
Thomas J. Navin	Mayor	MI	R	Forgery	2/1882 to 3/1885	(1), (2)
Franklin J. Moses Jr	Governor	SC	R	Fraud	3/1882 to 6/1882	(1)
Daniel Wolsey Voorhees	Senator	IN	D	Corruption	5/1882 to 6/1882	(1)
Charles H. Houghton	U.S. Collector of Customs	USA	R	Fraud & embezzlement	5/1882 to 11/1882	(1), (2)
William Pitt Kellogg	Senator	LA	R	Bribery	7/1882 to 7/1884	(1)
Roscoe Conkling	Senator	NY	R	Bribery	8/1882 to 9/1882	(1)
William A. Wright	State Representative	OH	D	Bribery	11/1882 to 12/1882	(1)
William Bloch	State Representative	OH	D	Bribery	11/1882 to 3/1883	(1)
Marshall Tate Polk	State Treasurer	TN	D	Embezzlement	1/1883 to 7/1883	(1), (2)
James Gillespie Blaine	Senator	ME	R	Bribery & fraud	5/1884 to 9/1884	(1)
Franklin J. Moses Jr	Governor	SC	R	Fraud	10/1884 to 11/1885	(1)
John Rhoderic McPherson	Senator	NJ	D	Conspiracy & bribery	6/1885 to 9/1885	(1)
William Joyce Sewell	Senator	NJ	R	Conspiracy	6/1885 to 9/1885	(1)
Henry J. Coggeshall	State Senator	NY	R	Bribery	6/1885 to 11/1885	(1)
Henry B. Payne	Senator	OH	D	Bribery	1/1886 to 7/1886	(1)
Isham Greene Harris	Senator	TN	D	Bribery	2/1886 to 9/1886	(1)

\*Sources:

(1): ProQuest's archive of the *Chicago Tribune*, *Atlanta Constitution*, *New York Times*, *San Francisco Chronicle* and *Washington Post*

(2): Political Graveyard

(3): Senate Historical Office

Search strings for individual scandals are available upon request.

Appendix Table B.1 – (continued)

Name	Office	State	Party	Scandal	Time Window	Source*
Augustus Hill Garland	Attorney General	USA	D	Bribery	2/1886 to 12/1886	(1)
John L. Brown	State Auditor	IA	R	Malfeasance	4/1886 to 7/1886	(1)
James Herrington	Mayor	IL	D	Malfeasance	4/1888 to 12/1888	(1)
Benjamin W. Roscoe	City Treasurer	NY	D	Bribery	3/1889 to 4/1890	(1)
William L. Hemingway	State Treasurer	MS	D	Embezzlement	2/1890 to 7/1890	(1)
Stevenson Archer	State Treasurer	MD	D	Embezzlement	3/1890 to 7/1890	(1)
Lee F. Wilson	State Representative	IN	D	Fraud	4/1890 to 6/1890	(1)
Eli J. Henkle	Representative	MD	D	Forgery	7/1890 to 12/1890	(1)
Daniel F. Beatty	Mayor	NJ	D	Violation of postal laws	10/1890 to 12/1890	(1)
John McLennan	Alderman	NY	R	Bribery	10/1890 to 12/1890	(1)
Sol Van Praag	State Representative	IL	D	Fraud & perjury	11/1890 to 12/1890	(1)
M.J. Doyle	State Representative	MI	D	Bribery	6/1891 to 7/1891	(1)
Charles W. Buttz	Lobbyst	ND	R	Bribery	5/1894 to 5/1894	(1)
George H. Morrison	County Treasurer	NY	R	Embezzlement	9/1896 to 11/1896	(1)
Joseph S. Bartley	City Treasurer	NE	R	Embezzlement	2/1897 to 6/1897	(1)
Henry Heitfeld	State Senator	ID	D	Bribery & fraud	3/1897 to 4/1897	(1)
W. Godfrey Hunter	Senate (Candidate)	KY	R	Bribery	4/1897 to 9/1897	(1)
Lant K. Salsbury	City Attorney	MI	D	Bribery	2/1901 to 12/1903	(1)
Albert Alonzo Ames	Mayor	MN	D	Bribery	6/1902 to 9/1903	(1)
John A. Lee	Lieutenant Governor	MO	D	Bribery	4/1903 to 11/1903	(1)
Frank H. Farris	State Senator	MO	D	Bribery	4/1903 to 8/1905	(1)
Edmund H. Driggs	Representative	NY	D	Fraud	6/1903 to 1/1904	(1)
George E. Green	State Senator	NY	R	Fraud	9/1903 to 6/1906	(1)
Charles H. Dietrich	Senator	NE	R	Bribery	11/1903 to 4/1904	(1)
Joseph Ralph Burton	Senator	KS	R	Bribery	1/1904 to 6/1906	(1)
Barney A. Eaton	State Senator	WI	R	Bribery	1/1904 to 3/1906	(1)
John H. Mitchell	Senator	OR	R	Bribery & fraud	1/1905 to 7/1905	(1)
Binger Hermann	Representative	OR	R	Fraud	1/1905 to 12/1910	(1)

\*Sources:

(1): ProQuest's archive of the *Chicago Tribune*, *Atlanta Constitution*, *New York Times*, *San Francisco Chronicle* and *Washington Post*

(2): Political Graveyard

(3): Senate Historical Office

Search strings for individual scandals are available upon request.

Appendix Table B.1 – (continued)

Name	Office	State	Party	Scandal	Time Window	Source*
Frank D. Comerford	State Representative	IL	D	Bribery	2/1905 to 4/1905	(1)
John N. Williamson	Representative	OR	R	Conspiracy & fraud	2/1905 to 9/1905	(1)
Francis E. Warren	Senator	WY	R	Graft	2/1905 to 2/1905	(1)
William Leib	U.S. Assistant Treasurer	USA	R	Civil service law violation	9/1905 to 11/1905	(1)
Frank J. Gethro	State Representative	MA	D	Bribery	5/1906 to 6/1906	(1)
George L. Lilley	Representative	CT	R	Corruption	12/1908 to 1/1909	(1)
Isaac Stephenson	Senator	WI	R	Bribery	2/1909 to 3/1912	(1)
Arthur C. Harper	Mayor	CA	D	Bribery	1/1909 to 3/1909	(1)
Jotham P. Allds	State Senator	NY	R	Bribery	1/1910 to 3/1910	(1)
Lee O'Neil Browne	State Representative	IL	D	Bribery	4/1910 to 9/1910	(1)
William Lorimer	Senator	IL	R	Bribery	4/1910 to 7/1912	(1)
John Broderick	State Senator	IL	D	Bribery	5/1910 to 5/1911	(1)
Joseph S. Clark	State Representative	IL	D	Bribery & conspiracy	5/1910 to 3/1911	(1)
Stanton C. Pemberton	State Senator	IL	R	Bribery & conspiracy	5/1910 to 3/1911	(1)
Thomas Pryor Gore	Senator	OK	D	Bribery	6/1910 to 3/1911	(1)

\*Sources:

(1): ProQuest's archive of the *Chicago Tribune*, *Atlanta Constitution*, *New York Times*, *San Francisco Chronicle* and *Washington Post*

(2): Political Graveyard

(3): Senate Historical Office

Search strings for individual scandals are available upon request.

Appendix Table B.2: Summary Statistics

Panel A: Baseline Estimates					
	Min	Max	Mean	Standard Deviation	N
Relative Hits	-18.711	77.690	-0.015	5.353	3696
Scandal Hits/Total Hits	0.000	96.401	2.741	6.841	3696
Newspaper Frequency	0.143	1.000	0.681	0.410	3696
In-State Scandal	0.000	1.000	0.022	0.146	3696
In-Region Scandal	0.000	1.000	0.117	0.322	3696
Log Newspapers	0.000	2.303	1.266	0.650	3696
Opposition Party	0.000	1.000	0.362	0.481	3696
Own Party	0.000	1.000	0.470	0.499	3696
Overall Bias	-1.000	1.000	-0.108	0.906	3696

Panel B: With Voter Partisanship					
	Min	Max	Mean	Standard Deviation	N
Relative Hits	-18.711	77.690	0.108	5.479	3316
Scandal Hits/Total Hits	0.000	96.401	2.925	7.087	3316
Newspaper Frequency	0.143	1.000	0.709	0.403	3316
In-State Scandal	0.000	1.000	0.024	0.153	3316
In-Region Scandal	0.000	1.000	0.127	0.333	3316
Log Newspapers	0.000	2.303	1.329	0.623	3316
Opposition Party	0.000	1.000	0.370	0.483	3316
Own Party	0.000	1.000	0.490	0.500	3316
Overall Bias	-1.000	1.000	-0.120	0.919	3316
Voter Partisanship	0.022	0.980	0.487	0.153	3316

Appendix Table B.3: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)
Newspaper Frequency	0.372 (0.202)	0.243 (0.215)	0.287 (0.223)	0.215 (0.225)
In-State Scandal	4.747 (1.429)	4.773 (1.434)	4.760 (1.435)	4.800 (1.437)
In-Region Scandal	1.989 (0.670)	1.914 (0.667)	1.973 (0.674)	1.910 (0.667)
Log Newspapers			0.472 (0.208)	0.366 (0.209)
Opposition Party	0.859 (0.273)	0.863 (0.272)	2.462 (0.742)	2.396 (0.759)
Opposition Party $\times$ Log Newspapers			-1.200 (0.400)	-1.133 (0.410)
Year		-0.014 (0.003)		-0.019 (0.004)
Share of Population Living in Cities 2.5K+		-0.232 (0.432)		-0.260 (0.457)
Share of Population Living in Cities 25K+		-1.083 (0.417)		-0.985 (0.406)
Share of Population that is White		-0.027 (0.619)		-0.044 (0.624)
Share of Population that is Male and over 21		-1.730 (1.584)		-0.700 (1.619)
Log per Capita Manufacturing Output		0.146 (0.135)		0.133 (0.128)
Log Average Annual Wages in Manufacturing		0.837 (0.335)		0.831 (0.334)
Log Population		0.277 (0.175)		0.278 (0.167)
Observations	3696	3696	3696	3696

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

Corresponds to columns 1-4 of Table 2.3.

Appendix Table B.4: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)
Newspaper Frequency	0.405 (0.202)	0.298 (0.210)	0.391 (0.217)	0.301 (0.217)
In-State Scandal	4.767 (1.423)	4.811 (1.426)	4.743 (1.439)	4.806 (1.441)
In-Region Scandal	1.992 (0.669)	1.919 (0.668)	1.996 (0.674)	1.911 (0.670)
Log Newspapers			-0.310 (0.196)	-0.479 (0.208)
Own Party	-0.633 (0.254)	-0.689 (0.260)	-1.753 (0.635)	-2.085 (0.676)
Own Party $\times$ Log Newspapers			0.864 (0.342)	1.061 (0.369)
Year		-0.014 (0.002)		-0.019 (0.004)
Share of Population Living in Cities 2.5K+		-0.253 (0.441)		-0.350 (0.470)
Share of Population Living in Cities 25K+		-1.196 (0.443)		-1.142 (0.430)
Share of Population that is White		-0.037 (0.628)		0.166 (0.627)
Share of Population that is Male and over 21		-3.059 (1.550)		-4.264 (1.663)
Log per Capita Manufacturing Output		0.202 (0.148)		0.210 (0.146)
Log Average Annual Wages in Manufacturing		0.694 (0.335)		0.732 (0.339)
Log Population		0.226 (0.170)		0.223 (0.161)
Observations	3696	3696	3696	3696

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

Corresponds to columns 5-8 of Table 2.3.

Appendix Table B.5: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)
Newspaper Frequency	0.387 (0.201)	0.273 (0.212)	0.345 (0.219)	0.260 (0.221)
In-State Scandal	4.747 (1.426)	4.785 (1.429)	4.744 (1.438)	4.799 (1.439)
In-Region Scandal	1.999 (0.671)	1.924 (0.668)	1.994 (0.676)	1.917 (0.670)
Log Newspapers			-0.005 (0.153)	-0.083 (0.159)
Overall Bias	0.440 (0.151)	0.450 (0.151)	1.266 (0.399)	1.282 (0.399)
Overall Bias $\times$ Log Newspapers			-0.627 (0.214)	-0.630 (0.215)
Year		-0.014 (0.003)		-0.020 (0.004)
Share of Population Living in Cities 2.5K+		-0.240 (0.436)		-0.313 (0.465)
Share of Population Living in Cities 25K+		-1.161 (0.433)		-1.074 (0.419)
Share of Population that is White		-0.031 (0.623)		0.079 (0.622)
Share of Population that is Male and over 21		-2.471 (1.562)		-2.635 (1.579)
Log per Capita Manufacturing Output		0.176 (0.141)		0.175 (0.137)
Log Average Annual Wages in Manufacturing		0.756 (0.334)		0.774 (0.336)
Log Population		0.249 (0.172)		0.247 (0.164)
Observations	3696	3696	3696	3696

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

Corresponds to columns 9-12 of Table 2.3.



Appendix Table B.6: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)
Newspaper Frequency	0.201 (0.216)	0.171 (0.233)	0.207 (0.233)	0.155 (0.236)
In-State Scandal	4.789 (1.438)	4.853 (1.444)	4.830 (1.442)	4.888 (1.446)
In-Region Scandal	1.865 (0.667)	1.793 (0.656)	1.862 (0.668)	1.785 (0.656)
Log Newspapers			0.403 (0.242)	0.339 (0.261)
Opposition Party	0.997 (0.328)	1.030 (0.327)	2.863 (0.879)	2.893 (0.881)
Opposition Party $\times$ Log Newspapers			-1.319 (0.450)	-1.311 (0.454)
Voter Partisanship	-1.094 (0.866)	-1.024 (0.843)	-1.406 (0.875)	-1.344 (0.857)
Year		-0.026 (0.005)		-0.030 (0.006)
Share of Population Living in Cities 2.5K+		-0.228 (0.546)		-0.256 (0.577)
Share of Population Living in Cities 25K+		-0.877 (0.522)		-0.719 (0.521)
Share of Population that is White		0.376 (0.728)		0.349 (0.749)
Share of Population that is Male and over 21		-4.734 (2.264)		-3.826 (2.284)
Log per Capita Manufacturing Output		0.072 (0.197)		0.048 (0.199)
Log Average Annual Wages in Manufacturing		1.183 (0.383)		1.262 (0.387)
Log Population		0.159 (0.197)		0.185 (0.189)
Observations	3316	3316	3316	3316

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

Corresponds to columns 1-4 of Table 2.4.

Appendix Table B.7: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)
Newspaper Frequency	0.129 (0.219)	0.184 (0.231)	0.178 (0.232)	0.196 (0.231)
In-State Scandal	4.801 (1.429)	4.895 (1.429)	4.859 (1.440)	4.923 (1.442)
In-Region Scandal	1.861 (0.668)	1.802 (0.657)	1.855 (0.669)	1.784 (0.656)
Log Newspapers			-0.882 (0.276)	-0.849 (0.276)
Own Party	-0.896 (0.315)	-0.889 (0.316)	-2.897 (0.883)	-2.865 (0.875)
Own Party $\times$ Log Newspapers			1.403 (0.450)	1.401 (0.450)
Voter Partisanship	-1.019 (0.869)	-0.884 (0.845)	-1.402 (0.902)	-1.244 (0.879)
Year		-0.027 (0.005)		-0.030 (0.006)
Share of Population Living in Cities 2.5K+		-0.397 (0.563)		-0.681 (0.634)
Share of Population Living in Cities 25K+		-0.869 (0.525)		-0.503 (0.513)
Share of Population that is White		0.269 (0.740)		0.421 (0.744)
Share of Population that is Male and over 21		-4.313 (2.276)		-3.030 (2.289)
Log per Capita Manufacturing Output		0.120 (0.208)		0.073 (0.205)
Log Average Annual Wages in Manufacturing		0.979 (0.387)		1.057 (0.389)
Log Population		0.088 (0.194)		0.119 (0.186)
Observations	3316	3316	3316	3316

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

Corresponds to columns 5-8 of Table 2.4.

Appendix Table B.8: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)
Newspaper Frequency	0.160 (0.217)	0.179 (0.232)	0.190 (0.232)	0.176 (0.233)
In-State Scandal	4.787 (1.433)	4.869 (1.436)	4.842 (1.441)	4.903 (1.443)
In-Region Scandal	1.867 (0.668)	1.803 (0.657)	1.861 (0.669)	1.789 (0.657)
Log Newspapers			-0.234 (0.167)	-0.243 (0.191)
Overall Bias	0.559 (0.186)	0.560 (0.183)	1.558 (0.471)	1.549 (0.468)
Overall Bias $\times$ Log Newspapers			-0.720 (0.237)	-0.715 (0.237)
Voter Partisanship	-1.262 (0.902)	-1.145 (0.876)	-1.571 (0.923)	-1.447 (0.900)
Year		-0.028 (0.006)		-0.031 (0.006)
Share of Population Living in Cities 2.5K+		-0.313 (0.554)		-0.477 (0.607)
Share of Population Living in Cities 25K+		-0.888 (0.527)		-0.615 (0.519)
Share of Population that is White		0.309 (0.734)		0.373 (0.745)
Share of Population that is Male and over 21		-4.410 (2.265)		-3.284 (2.293)
Log per Capita Manufacturing Output		0.094 (0.202)		0.059 (0.201)
Log Average Annual Wages in Manufacturing		1.070 (0.383)		1.150 (0.386)
Log Population		0.122 (0.196)		0.150 (0.187)
Observations	3316	3316	3316	3316

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

Corresponds to columns 9-12 of Table 2.4.

Appendix Table B.9: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)
Newspaper Frequency	0.293 (0.222)	0.227 (0.223)
In-State Scandal	4.744 (1.436)	4.788 (1.436)
In-Region Scandal	1.952 (0.671)	1.895 (0.666)
Log Newspapers	0.376 (0.196)	0.296 (0.202)
Opposition Party	2.266 (0.686)	2.191 (0.699)
Opposition Party $\times$ Log Newspapers	-1.002 (0.357)	-0.931 (0.367)
Year	-0.007 (0.006)	-0.005 (0.006)
Opposition Party $\times$ Year	-0.041 (0.018)	-0.041 (0.018)
Share of Population Living in Cities 2.5K+		-0.205 (0.453)
Share of Population Living in Cities 25K+		-1.086 (0.430)
Share of Population that is White		-0.160 (0.644)
Share of Population that is Male and over 21		-0.766 (1.616)
Log per Capita Manufacturing Output		0.148 (0.133)
Log Average Annual Wages in Manufacturing		0.795 (0.326)
Log Population		0.260 (0.166)
Observations	3696	3696

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

Corresponds to columns 1-2 of Table 2.5.

Appendix Table B.10: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)
Newspaper Frequency	0.386 (0.218)	0.297 (0.218)
In-State Scandal	4.735 (1.441)	4.795 (1.444)
In-Region Scandal	1.986 (0.672)	1.900 (0.668)
Log Newspapers	-0.248 (0.183)	-0.416 (0.196)
Own Party	-1.578 (0.575)	-1.913 (0.620)
Own Party $\times$ Log Newspapers	0.707 (0.308)	0.905 (0.338)
Year	-0.033 (0.011)	-0.034 (0.010)
Own Party $\times$ Year	0.030 (0.017)	0.030 (0.017)
Share of Population Living in Cities 2.5K+		-0.340 (0.466)
Share of Population Living in Cities 25K+		-1.158 (0.437)
Share of Population that is White		0.246 (0.630)
Share of Population that is Male and over 21		-4.109 (1.647)
Log per Capita Manufacturing Output		0.199 (0.143)
Log Average Annual Wages in Manufacturing		0.695 (0.330)
Log Population		0.236 (0.163)
Observations	3696	3696

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

Corresponds to columns 3-4 of Table 2.4.

Appendix Table B.11: Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)
Newspaper Frequency	0.345 (0.220)	0.263 (0.220)
In-State Scandal	4.731 (1.440)	4.787 (1.440)
In-Region Scandal	1.977 (0.672)	1.901 (0.668)
Log Newspapers	-0.013 (0.154)	-0.076 (0.158)
Overall Bias	1.158 (0.365)	1.173 (0.366)
Overall Bias $\times$ Log Newspapers	-0.531 (0.192)	-0.532 (0.194)
Year	-0.025 (0.006)	-0.024 (0.005)
Overall Bias $\times$ Year	-0.020 (0.010)	-0.020 (0.010)
Share of Population Living in Cities 2.5K+		-0.281 (0.459)
Share of Population Living in Cities 25K+		-1.133 (0.435)
Share of Population that is White		0.076 (0.629)
Share of Population that is Male and over 21		-2.576 (1.579)
Log per Capita Manufacturing Output		0.175 (0.138)
Log Average Annual Wages in Manufacturing		0.731 (0.326)
Log Population		0.247 (0.165)
Observations	3696	3696

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

Even numbered columns include all additional controls.

Corresponds to columns 5-6 of Table 2.4.

## Appendix for Chapter 3.

### C.1. Scandal List

Appendix Table C.1: List of Scandals

State	Election Year	District	Name	Party	Result	Sample
DE	1982	1	EVANS, THOMAS BEVERLY, JR.	R	lost	District
CA	1984	8	DELLUMS, RONALD V.	D	won	District
CO	1984	3	STRANG, MICHAEL L.	R	won	District/County
ID	1984	2	HANSEN, GEORGE V.	R	lost	District/County
IL	1984	19	CRANE, DANIEL BEVER	R	lost	District/County
MA	1984	10	STUDDS, GERRY E.	D	won	District/County
NY	1984	9	FERRARO, GERALDINE A.	D	retired	District/County
OH	1984	1	LUKEN, THOMAS ANDREW	D	won	District/County
OH	1984	21	STOKES, LOUIS	D	won	District/County
TN	1984	6	GORDON, BART J.	D	won	District/County
TN	1984	8	JONES, EDWARD (ED)	D	unopposed	District
TX	1984	2	WILSON, CHARLES	D	won	District/County
UT	1984	2	MONSON, DAVID S.	R	won	District/County
VA	1984	5	DANIEL, W.C. (DAN)	D	won	District
CA	1986	15	COELHO, ANTHONY LEE (TONY)	D	won	District
CA	1986	21	FIEDLER, BOBBI	R	retired	District
CA	1986	41	LOWERY, WILLIAM DAVID (BILL)	R	won	District
CT	1986	2	MULLEN, FRANCIS M. (BUD)	R	lost	District/County
GA	1986	4	JONES, BEN L.	D	lost	District/County
ID	1986	2	STALLINGS, RICHARD HOWARD	D	won	District/County
IL	1986	8	ROSTENKOWSKI, DANIEL DAVID	D	won	District/County
KY	1986	4	MANN, TERRY L.	D	lost	District/County
MD	1986	7	MFUME, KWEISI	D	won	District/County
NC	1986	7	ROSE, CHARLES G.	D	won	District/County

Source: Hirano and Snyder (2012) and Basinger et al. (2014)

Appendix Table C.1 – (continued)

State	Election Year	District	Name	Party	Result	Sample
NM	1986	2	RUNNELS, MIKE	D	lost	District/County
NM	1986	3	RICHARDSON, WILLIAM B. (BILL)	D	won	District/County
OR	1986	4	WEAVER, JAMES	D	retired	District/County
PA	1986	3	ROVNER, ROBERT A.	R	lost	District/County
PA	1986	15	RITTER, DONALD LAWRENCE	R	won	District/County
RI	1986	1	ST. GERMAIN, FERNAND J.	D	won	District/County
TX	1986	14	SWEENEY, DAVID MCCANN (MAC)	R	won	District/County
TX	1986	20	GONZALEZ, HENRY B.	D	won	District
TX	1986	25	ANDREWS, MICHAEL (MIKE)	D	won	District
VA	1986	2	CANADA, A. JOSEPH	R	lost	District/County
CA	1988	12	KONNYU, ERNEST L.	R	lost nomination	District
CA	1988	36	BROWN, GEORGE EDWARD, JR.	D	won	District
CA	1988	44	BATES, JIM	D	won	District
ID	1988	2	STALLINGS, RICHARD HOWARD	D	won	District/County
MD	1988	1	DYSON, ROYDEN PATRICK (ROY)	D	won	District/County
MI	1988	11	IRWIN, MITCH	D	lost	District/County
MO	1988	8	EMERSON, BILL	R	won	District/County
NC	1988	7	ROSE, CHARLES G.	D	won	District/County
NY	1988	19	BIAGGI, MARIO	R	lost	District/County
OH	1988	17	TRAFICANT, JAMES A., JR.	D	won	District/County
OH	1988	20	OAKAR, MARY ROSE	D	won	District/County
OK	1988	1	INHOFE, JAMES M.	R	won	District/County
PA	1988	22	MURPHY, AUSTIN J.	D	won	District/County
RI	1988	1	ST. GERMAIN, FERNAND J.	D	lost	District/County
TN	1988	2	DUNCAN, JOHN J.	R	won	District/County
TN	1988	9	FORD, HAROLD E.	D	won	District
TX	1988	20	GONZALEZ, HENRY B.	D	won	District/County
AL	1990	2	DICKINSON, WILLIAM LOUIS	R	won	District/County
CA	1990	15	COELHO, ANTHONY LEE (TONY)	D	resigned	District
CA	1990	17	PASHAYAN, CHARLES (CHIP), JR.	R	lost	District

Source: Hirano and Snyder (2012) and Basinger et al. (2014)



Appendix Table C.1 – (continued)

State	Election Year	District	Name	Party	Result	Sample
CA	1990	28	DIXON, JULIAN CAREY	D	won	District
CA	1990	31	DYMALLY, MERVYN M.	D	won	District
CA	1990	37	WAITE, RALPH H.	D	lost	District
CA	1990	44	BATES, JIM	D	lost	District
FL	1990	4	JAMES, CRAIG TAYLOR	R	won	District/County
GA	1990	6	GINGRICH, NEWTON LEROY	R	won	District/County
HI	1990	1	ABERCROMBIE, NEIL	D	won	County
IA	1990	2	TAUKE, THOMAS JOSEPH	D	retired	District/County
IL	1990	2	SAVAGE, AUGUSTUS A. (GUS)	D	won	District/County
IL	1990	16	HALLOCK, JOHN W., JR.	R	lost	District/County
IN	1990	2	SHARP, PHILIP RILEY	D	won	District/County
MA	1990	4	FRANK, BARNEY	D	won	District/County
MD	1990	1	DYSON, ROYDEN PATRICK (ROY)	D	lost	District/County
MN	1990	6	SIKORSKI, GERALD EDWARD (GERRY)	D	won	District
MN	1990	7	STANGELAND, ARLAN INGEHART	R	lost	District
NM	1990	1	VIGIL-GIRON, REBECCA D.	D	lost	District/County
NY	1990	6	FLAKE, FLOYD H.	D	won	District/County
NY	1990	18	GARCIA, ROBERT	D	resigned	District
NY	1990	24	SOLOMON, GERALD B.	R	won	District/County
OH	1990	8	LUKENS, DONALD E.	R	resigned	District/County
PA	1990	7	WELDON, CURT	R	won	District
PA	1990	10	MCDADE, JOSEPH M.	R	unopposed	District
TN	1990	9	FORD, HAROLD E.	D	won	District/County
TX	1990	12	WRIGHT, JAMES CLAUD, JR.	D	resigned	District
TX	1990	13	SARPALIUS, BILL	D	won	District/County
UT	1990	3	SNOW, KARL N., JR.	R	lost	District/County
VA	1990	8	MORAN, JAMES P. (JIM), JR.	D	won	District/County
WV	1990	4	RAHALL, NICK JOE, II	D	won	County
CA	1994	41	KIM, JAY C.	R	won	District
CA	1994	43	CALVERT, KENNETH STANTON (KEN)	R	won	District

Source: Hirano and Snyder (2012) and Basinger et al. (2014)

Appendix Table C.1 – (continued)

State	Election Year	District	Name	Party	Result	Sample
CT	1994	2	GEJDENSON, SAMUEL (SAM)	D	won	District
GA	1994	6	GINGRICH, NEWTON LEROY	R	won	District
IL	1994	5	ROSTENKOWSKI, DANIEL DAVID	D	lost	District
MI	1994	8	CHRYSLER, RICHARD R. (DICK)	R	won	District
NV	1994	1	BILBRAY, JAMES H.	D	lost	District
NV	1994	2	GREESON, JANET	D	lost	District
NY	1994	4	FRISA, DANIEL	R	won	District
OH	1994	10	GAUL, FRANCIS E.	D	lost	District
OR	1994	5	KOPETSKI, MIKE	D	retired	District
PA	1994	10	MCDADE, JOSEPH M.	R	won	District
TN	1994	3	WAMP, ZACH	R	won	District
TX	1994	13	SARPALIUS, BILL	D	lost	District
TX	1994	14	LAUGHLIN, GREG H.	D	won	District
TX	1994	18	WASHINGTON, CRAIG A.	D	lost nomination	District
TX	1994	24	FROST, JONAS MARTIN, III	D	won	District
WA	1994	5	FOLEY, THOMAS S.	D	lost	District
CA	1996	36	HARMAN, JANE	D	won	District
CA	1996	37	TUCKER, WALTER R.	D	resigned	District
CA	1996	41	KIM, JAY C.	R	won	District
CT	1996	2	GEJDENSON, SAMUEL (SAM)	D	won	District
GA	1996	6	GINGRICH, NEWTON LEROY	R	won	District
ID	1996	1	CHENOWETH, HELEN P.	R	won	District
IL	1996	2	REYNOLDS, MELVIN J. (MEL)	D	resigned	District
IN	1996	2	MCINTOSH, DAVID MARTIN	R	won	District
MI	1996	10	BONIOR, DAVID E.	D	won	District
MI	1996	15	COLLINS, BARBARA-ROSE	D	lost nomination	District
MO	1996	3	GEPHARDT, RICHARD A. (DICK)	D	won	District
MT	1996	1	YELLOWTAIL, BILL	D	lost	District
NC	1996	2	FUNDERBURK, DAVID	R	lost	District
NJ	1996	12	ZIMMER, DICK	R	retired	District

Source: Hirano and Snyder (2012) and Basinger et al. (2014)

Appendix Table C.1 – (continued)

State	Election Year	District	Name	Party	Result	Sample
NY	1996	22	SOLOMON, GERALD B.	R	won	District
OK	1996	4	WATTS, JULIUS C., JR.	R	won	District
OR	1996	1	FURSE, ELIZABETH	D	won	District
OR	1996	5	BUNN, JAMES LEE (JIM)	R	lost	District
PA	1996	9	SHUSTER, E.G. (BUD)	R	won	District
PA	1996	10	MCDADE, JOSEPH M.	R	won	District
TN	1996	6	GORDON, BART J.	D	won	District
TX	1996	2	WILSON, CHARLES	D	retired	District
TX	1996	26	ARMEY, RICHARD K. (DICK)	R	won	District
UT	1996	2	WALDHOLTZ, ENID GREENE	R	retired	District
VA	1996	7	BLILEY, THOMAS J., JR.	R	won	District
WA	1996	7	MCDERMOTT, JAMES A. (JIM)	D	won	District
WI	1996	4	KLECZKA, GERALD D. (JERRY)	D	won	District
CA	1998	41	KIM, JAY C.	R	lost nomination	District/County
CA	1998	46	SANCHEZ, LORETTA	D	won	District/County
FL	1998	3	BROWN, CORRINE	D	won	District/County
FL	1998	12	CANADY, CHARLES T.	R	won	District
GA	1998	6	GINGRICH, NEWTON LEROY	R	won	District/County
ID	1998	1	CHENOWETH, HELEN P.	R	won	District/County
IL	1998	6	HYDE, HENRY JOHN	R	won	District/County
IL	1998	12	COSTELLO, JERRY F.	D	won	District/County
IN	1998	6	BURTON, DANNY L. (DAN)	R	won	District/County
OK	1998	4	WATTS, JULIUS C., JR.	R	won	District/County
PA	1998	9	SHUSTER, E.G. (BUD)	R	won	District
TX	1998	22	DELAY, THOMAS D. (TOM)	R	won	District/County
UT	1998	2	COOK, MERRILL A.	R	won	District/County
WA	1998	7	MCDERMOTT, JAMES A. (JIM)	D	won	District
AL	2000	7	HILLIARD, EARL FREDERICK	D	won	District/County
FL	2000	3	BROWN, CORRINE	D	won	District/County
GA	2000	7	BARR, BOB	R	won	District/County

Source: Hirano and Snyder (2012) and Basinger et al. (2014)

Appendix Table C.1 – *(continued)*

State	Election Year	District	Name	Party	Result	Sample
NC	2000	11	TAYLOR, CHARLES H.	R	won	District/County
PA	2000	9	SHUSTER, E.G. (BUD)	R	unopposed	District
TX	2000	22	DELAY, THOMAS D. (TOM)	R	won	District/County
VA	2000	8	MORAN, JAMES P. (JIM), JR.	D	won	District/County
CA	2004	22	THOMAS, WILLIAM MARSHALL (BILL)	R	won	District
MI	2004	7	SMITH, NICK H.	R	retired	District/County
MI	2004	10	MILLER, CANDICE S.	R	won	District/County
MI	2004	14	CONYERS, JOHN, JR.	D	won	District/County
MO	2004	5	MCCARTHY, KAREN	D	retired	District/County
NC	2004	10	BALLENGER, T. CASS	R	retired	District/County
OH	2004	4	OXLEY, MICHAEL G.	R	won	District/County
OH	2004	14	LATOURETTE, STEVEN C.	R	won	District/County
OR	2004	1	WU, DAVID (DAVE)	D	won	District/County
PA	2004	7	WELDON, CURT	R	won	District/County
VA	2004	2	SCHROCK, ED	R	retired	District/County
WA	2004	7	MCDERMOTT, JAMES A. (JIM)	D	won	District/County

Source: Hirano and Snyder (2012) and Basinger et al. (2014)

## C.2. Robustness Check

Appendix Table C.2: Newspaper Market and the Effect of Scandal (District)

Adding Interaction of Scandal with:	Coefficient	Std Error	N
Share urban	-5.305	3.437	3187
Log(Population per sq. mile)	-8.383	3.846	3187
Median income (logged)	-5.639	3.215	3187
Share older than 65	-5.508	3.091	3187
Share military population	-5.806	3.075	3187
Share employed in farming	-4.269	3.195	3187
Share foreign born	-10.350	3.641	3187
Share blue collar workers	-5.412	3.065	3187

This table replicates column (4) of Table 3.6 and add each interaction term as additional control. Cell entries are coefficients and standard errors of  $\text{Congruence} \times \text{Scandal}$ .

Appendix Table C.3: Newspaper Market and the Effect of Scandal (County)

Adding Interaction of Scandal with:	Coefficient	Std Error	N
Log(Population)	-2.840	1.294	16171
Log(Population per sq. mile)	-2.959	1.318	16171
Share urban	-3.119	1.252	16171
Share with high school education	-3.763	1.271	16171
Share with more than high school education	-3.350	1.241	16171
Log(Per capita income)	-3.107	1.224	16171
Share younger than 20	-2.715	1.304	16171
Share older than 65	-3.060	1.262	16171
Share black	-3.693	1.271	16171
Share female	-3.474	1.270	16171

This table replicates column (6) of Table 3.7 and add each interaction term as additional control. Cell entries are coefficients and standard errors of Congruence  $\times$  Scandal.

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